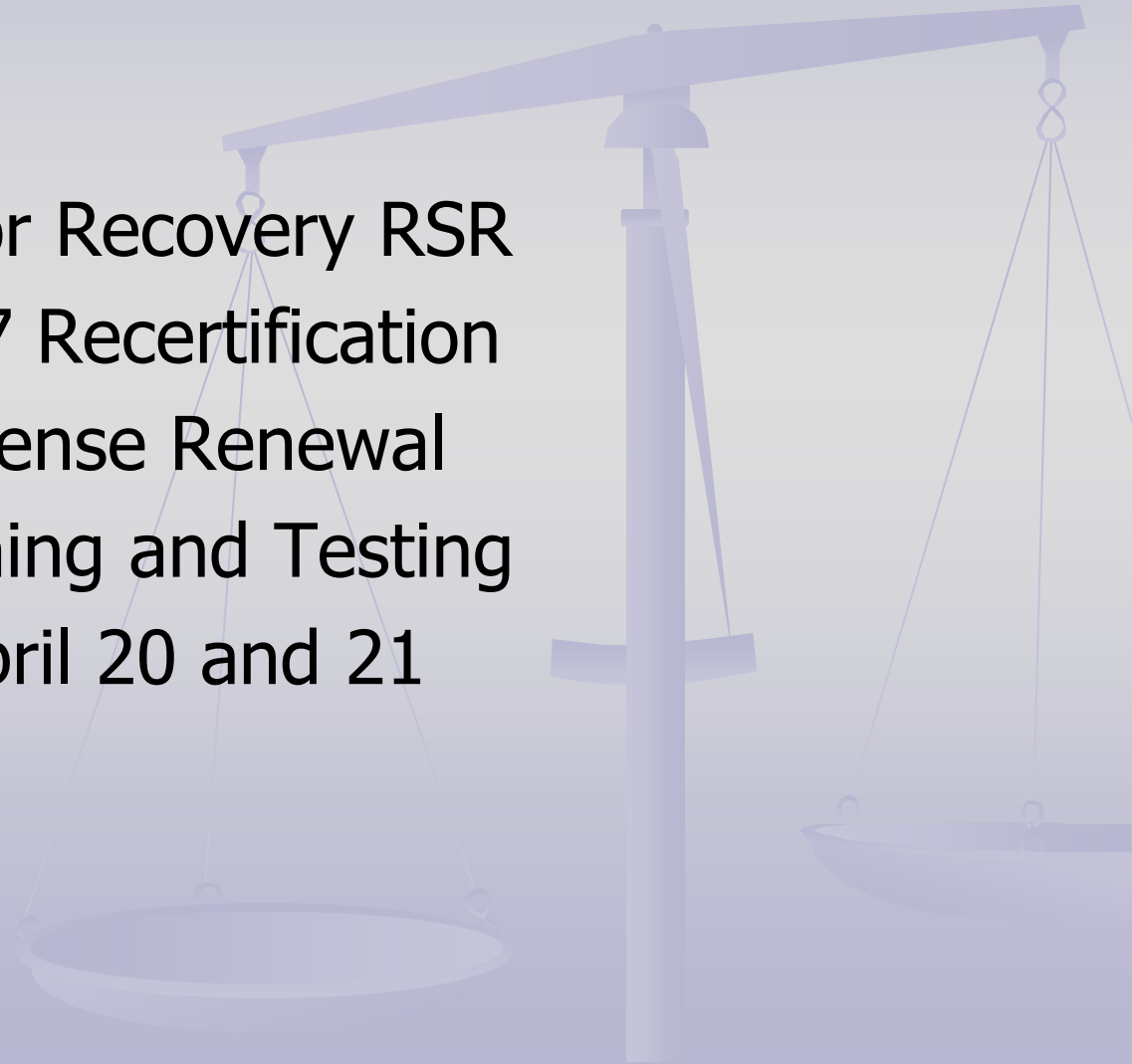


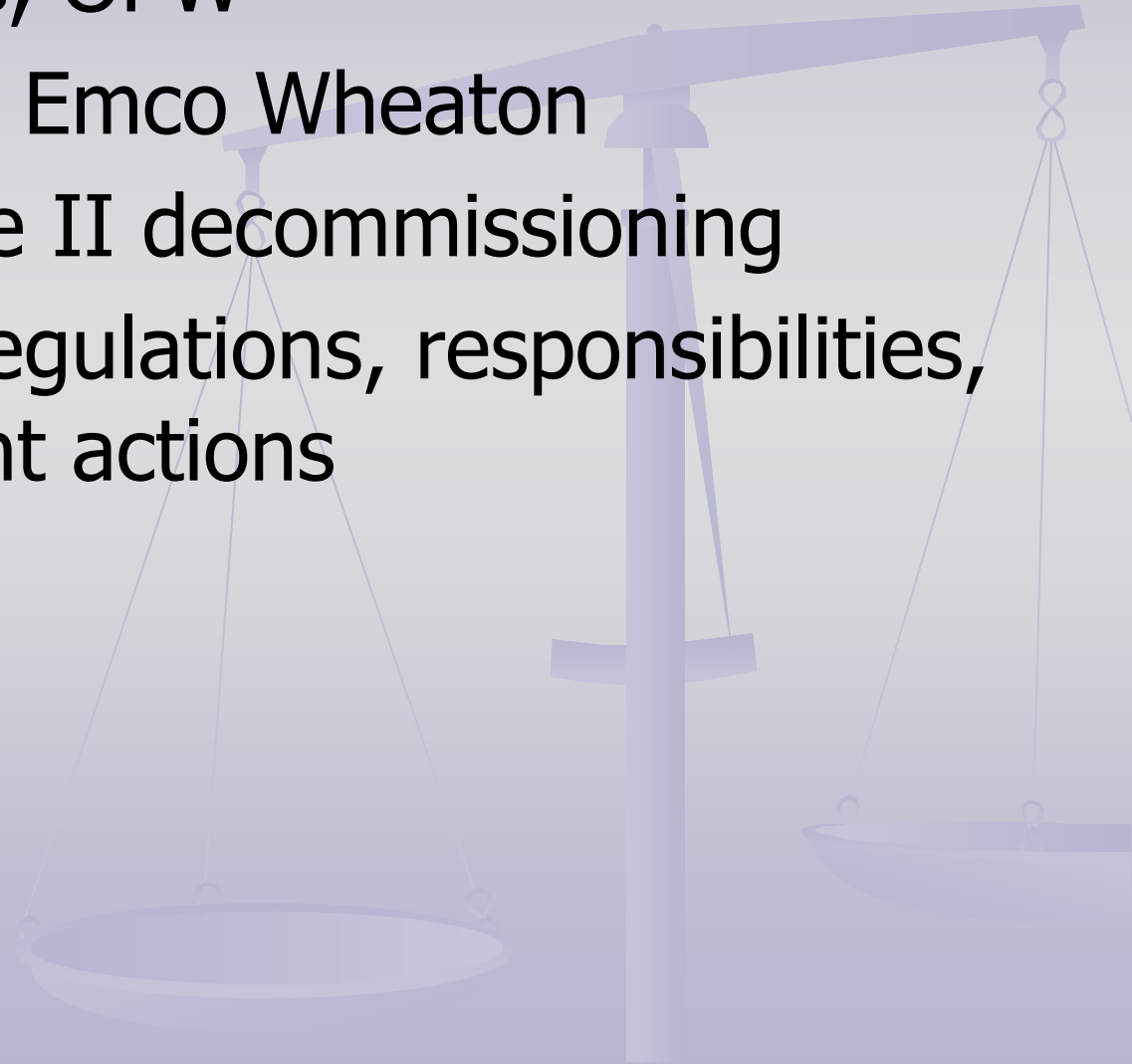
Arizona Department of Agriculture Weights and Measures Service Division

Vapor Recovery RSR
2017 Recertification
License Renewal
Training and Testing
April 20 and 21



Training Outline

- Michael Stevens, OPW
- Jose Rodriguez, Emco Wheaton
- Update on stage II decommissioning
- Review of the regulations, responsibilities, and enforcement actions
- Exam



Acronyms

- RSA – Registered Service Agency - means any agency, firm, company or corporation that for hire, award, commission or any other payment of any kind installs, services, repairs or reconditions a commercial device or tests or repairs vapor recovery systems or vapor recovery components and that has been issued a license by the Division. (ARS 41-2051)
- RSR – Registered Service Representative - means any individual who for hire, award, commission or any other payment of any kind installs, services, repairs or reconditions a commercial device or tests or repairs vapor recovery systems or vapor recovery components and who has been issued a license by the Division. (ARS 41-2051)
- EO – CARB Executive Order

State Program Authority

- State Implementation Plan (SIP)
 - In 1999, the EPA designated Maricopa County a non-attainment area for the 1 hour ozone standard.
 - Arizona had to submit a plan for compliance with the Federal standards.
 - One of the measures in the plan, Arizona adopted a Vapor Recovery program similar to that of California.

State Program Authority (cont.)

- The State delegated to our Division the administrative responsibility for this program.
- The Division developed regulations governing the program. Those regulation are delineated in A.A.C. Title 3, Articles 9 and 10 of the Division's rules.

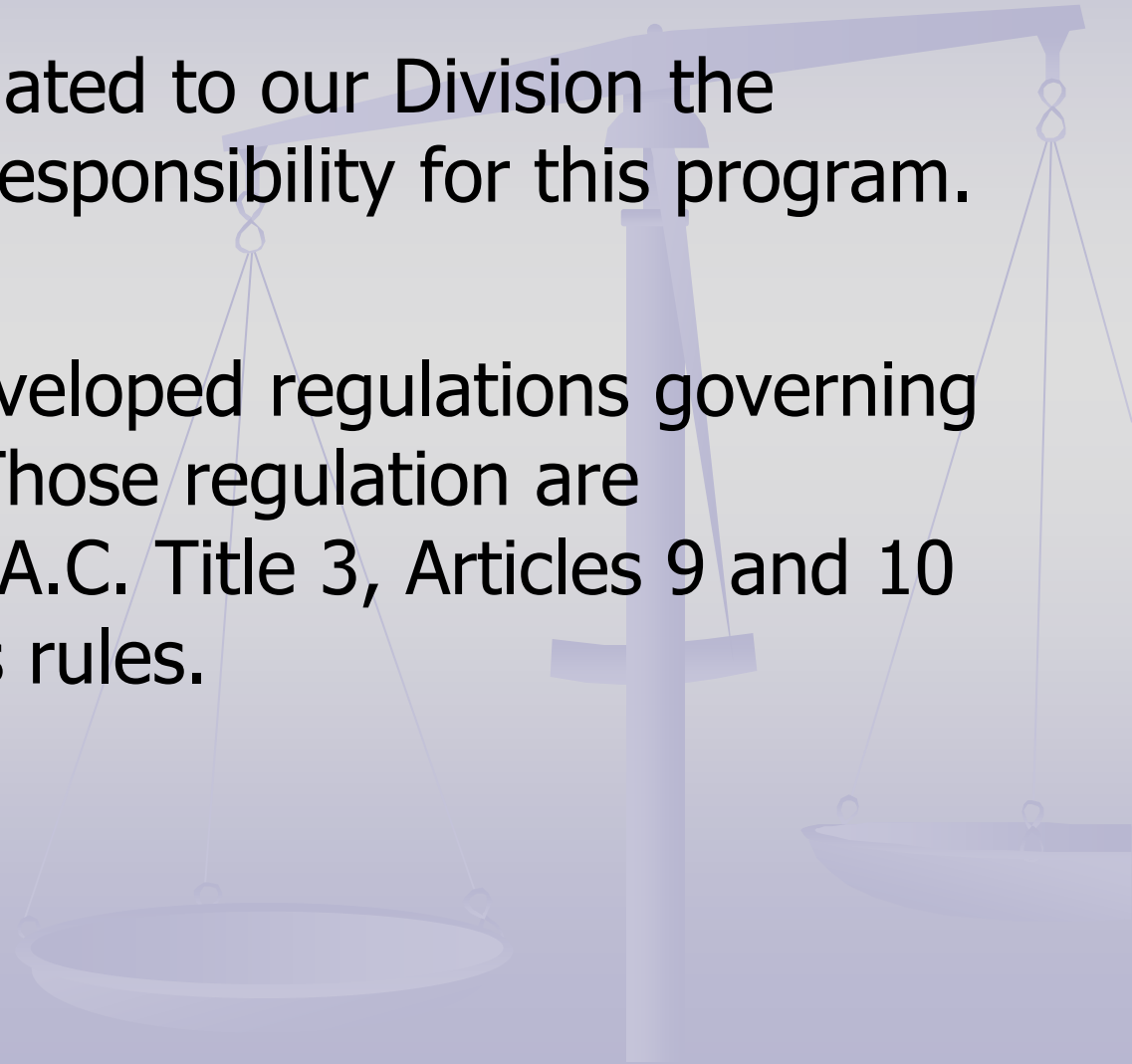
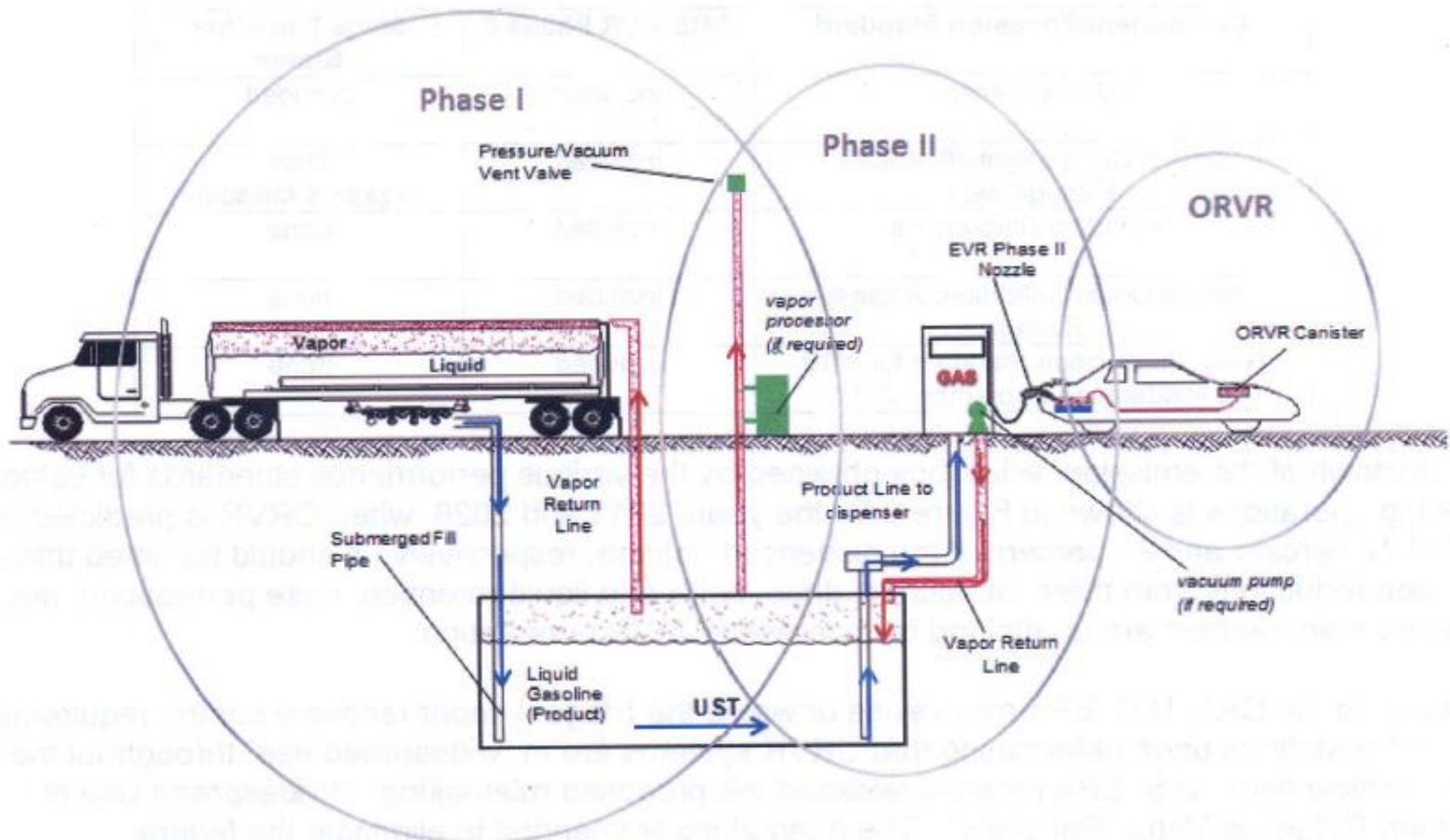


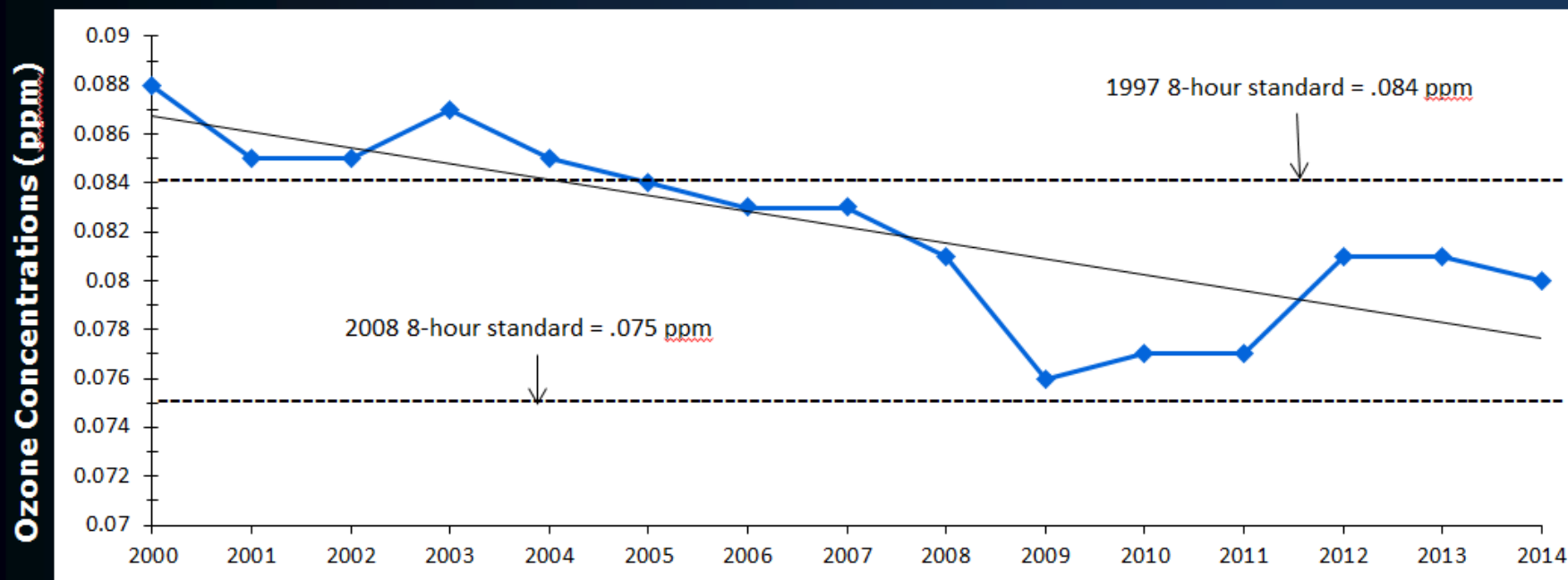
Figure 1

**Phase I, Phase II & ORVR Vapor Recovery Operations
at California Service Stations**



Eight-Hour Ozone Monitoring Data

Highest 3-Year Average of the 4th Highest 8-Hour Ozone Concentration in the Maricopa Nonattainment Area



Notes:

- To attain the eight-hour ozone standard, the 3 year average of the 4th highest daily maximum 8-hour concentration at each monitor per year must not exceed the standard.
- Due to mathematical rounding, values greater than or equal to .085 ppm are necessary to exceed the .08 ppm eight-hour ozone standard.
- Sources: 2000-2008: MAG Eight-Hour Ozone Redesignation Request and Maintenance Plan for the Maricopa Nonattainment Area, February 2009; 2009-2014: EPA Air Quality System.

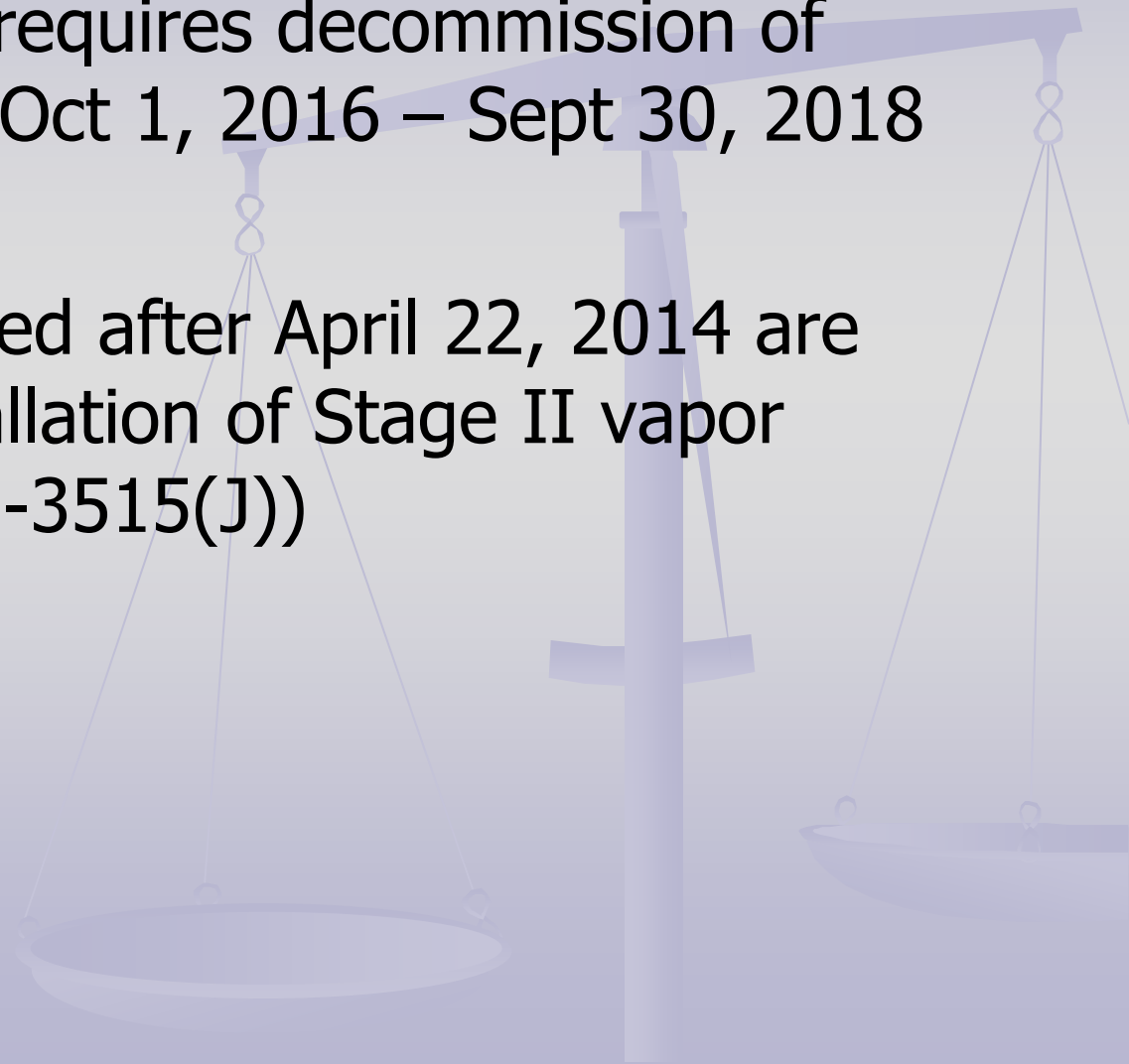
- March 2014 – proposed attainment 1997 standard
- December 2015 - attainment date for 2008 standard

Stage II Decommissioning

							Maricopa County Ozone Season
Year	ORVR Veh. Pop %	ORVR VMT %	ORVR Gas Disp. %	CF	EE	Increment (Eq. 1)	Stage II VRS VOC Reduction (Eq. 3) (kg/day)
2006	42.6%	51.2%	49.2%	0.0391	0.2975	0.293	4,537
2007	48.4%	57.3%	55.5%	0.0438	0.3329	0.249	3,951
2008	53.3%	62.3%	60.5%	0.0476	0.3620	0.213	3,278
2009	57.7%	66.8%	64.8%	0.0511	0.3881	0.183	2,650
2010	62.4%	71.6%	69.5%	0.0547	0.4160	0.150	2,159
2011	67.1%	76.0%	73.9%	0.0581	0.4416	0.119	1,732
2012	71.4%	80.0%	77.7%	0.0612	0.4648	0.092	1,369
2013	75.3%	83.4%	81.0%	0.0638	0.4846	0.069	1,030
2014	78.7%	86.3%	84.0%	0.0660	0.5014	0.048	716
2015	81.8%	88.8%	86.5%	0.0679	0.5159	0.030	453
2016	84.5%	90.9%	88.6%	0.0695	0.5281	0.015	230
2017	86.8%	92.5%	90.3%	0.0707	0.5374	0.004	53
2018	88.8%	93.9%	91.9%	0.0718	0.5456	-0.008	-113
2019	90.5%	95.0%	93.2%	0.0726	0.5520	-0.017	-247
2020	92.0%	95.9%	94.3%	0.0733	0.5572	-0.024	-359

Stage II Decommissioning, cont...

- A.R.S. 3-3515(H) requires decommission of Stage II between Oct 1, 2016 – Sept 30, 2018
- Stations constructed after April 22, 2014 are exempt from installation of Stage II vapor recovery (A.R.S. 3-3515(J))



Stage II Decommissioning Update, cont...

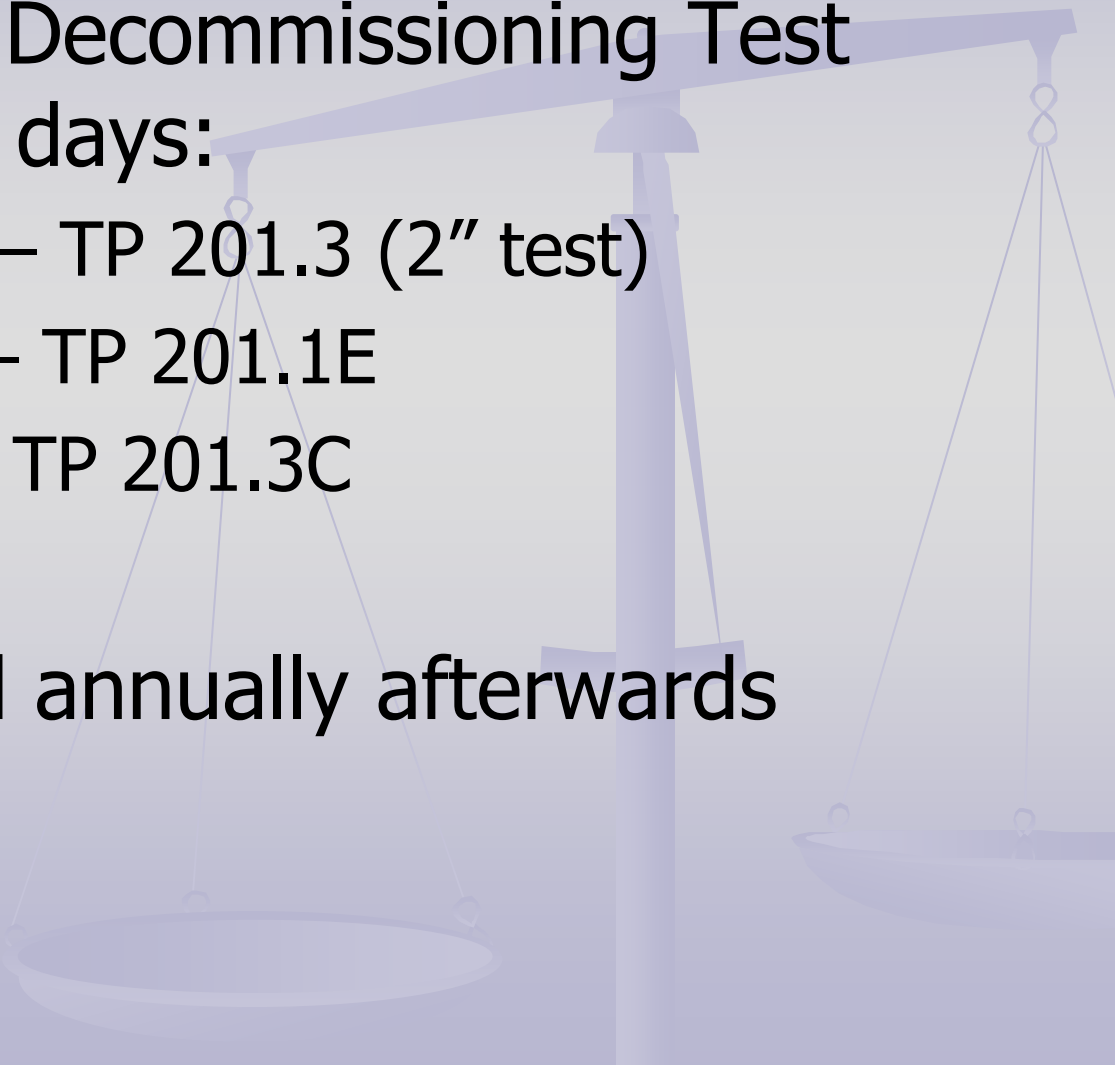
- New sites constructed or modified are regulated under Article 10, Stage I Vapor Recovery:
 - Apply for an ATC permit
 - Install stage I vapor recovery
 - See R3-7-1004 for a list of requirements
 - Conduct applicable annual tests (pressure decay, PV vent)
- Stage I sites in the vapor area have a fee code of 056
- Dispenser meter fee codes are 211 - 218
- Existing sites must maintain stage II equipment until they decommission in accordance with rules (October 2016 – September 2018)

Stage II Decommissioning Update, cont...

■ R3-7-913 specifies requirements:

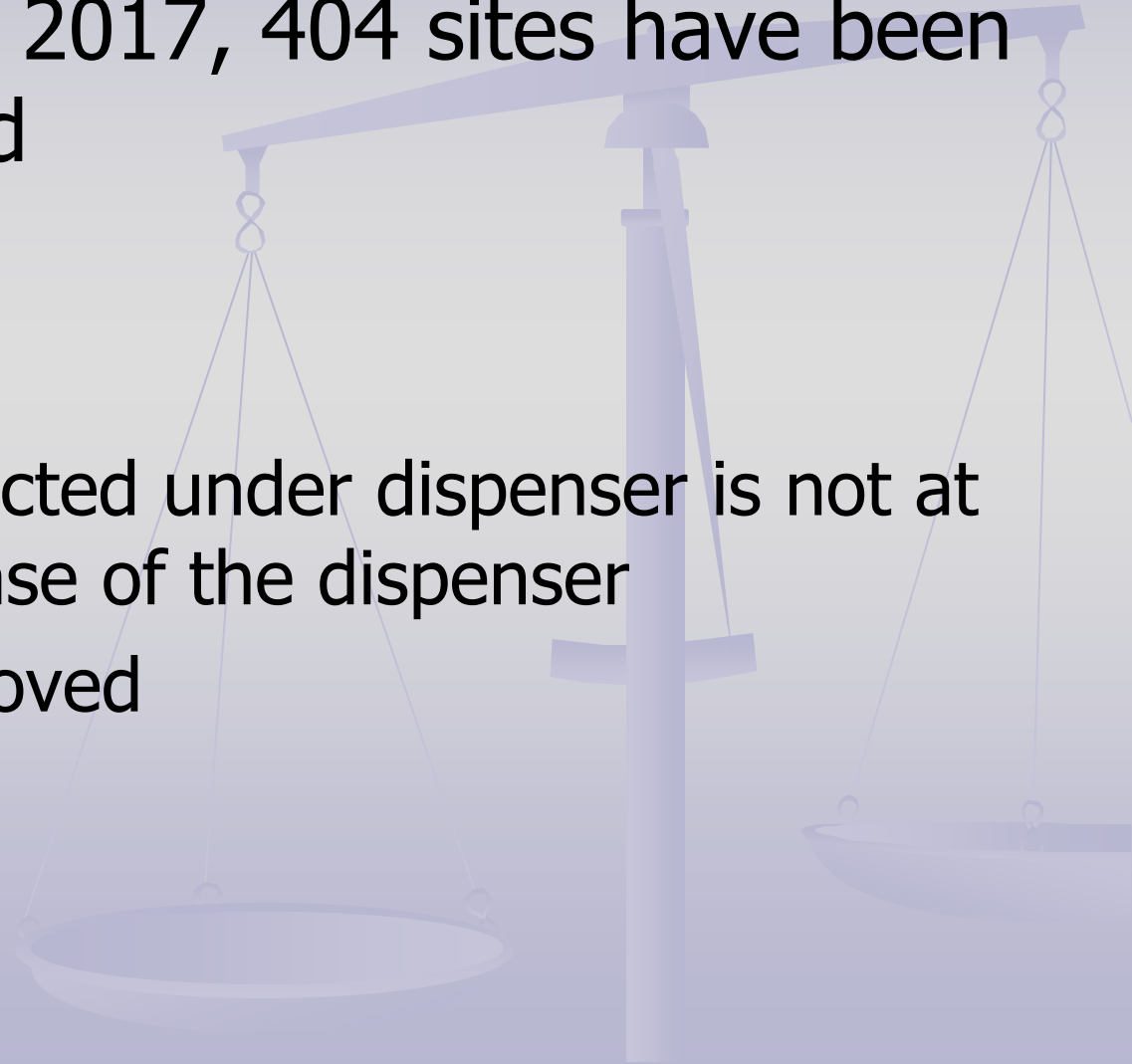
- Default decommission:
 - BMF <13676 = Year 1 (October 1, 2016 – September 30, 2016)
 - BMF >13676 = Year 2 (October 1, 2017 – September 30, 2017)
 - Exempt sites = Any time during 2-year time period
 - Sites replacing all dispensers may decommission at time of dispenser replacement with permission of the Division
- Sites may request to change the default dates by written request.
 - Specific plan requirements are in R3-7-913(5), (6), (7)
- Sites that decommission after their annual test month are required to conduct the stage II vapor recovery test

Stage II Decommissioning Update, cont...

- Schedule Vapor Decommissioning Test (VDT) within 60 days:
 - Pressure decay – TP 201.3 (2" test)
 - PV vent valves – TP 201.1E
 - Tie Tank Test – TP 201.3C
 - Testing required annually afterwards
- 

Current Status

- As of March 31, 2017, 404 sites have been decommissioned
- Top Issues
 - Piping disconnected under dispenser is not at or below the base of the dispenser
 - Decals not removed



Regulatory Requirements

- Statutes
- Rules
- ADWM Standard Operating Procedure
- CARB Executive Orders



State Program Authority (cont.)

- Below are sections where you can find the regulatory requirements for RSAs and RSRs.

R3-7-601 - Qualification; License and renewal Application

R3-7-602 - Duties

**R3-7-603 - Grounds for Denying License or Renewal:
Disciplinary Action; and Certification of Standards and
Testing Equipment**

R3-7-604 - Prohibited Acts

R3-7-605 - Material Incorporated by Reference

R3-7-104 - Administrative Enforcement Action

State Program Authority (cont.)

- Below are sections where you can find the regulatory requirements for the Stage II Vapor Recovery Program.

R3-7-901 - Material Incorporated by reference
R3-7-902 - Exemptions
R3-7-903 - Equipment and Installation
R3-7-904 - Application Requirement and Process for Authority to Construct Plan Approval
R3-7-905 - Initial Inspection and Testing

R3-7-906 - Fees
R3-7-907 - Operation
R3-7-908 - Training and Public Education
R3-7-909 - Recordkeeping and Reporting
R3-7-910 - Annual Inspection and Testing
R3-7-911 - Compliance Inspections

State Program Authority (cont.)

- Below are sections where you can find the regulatory requirements for the Stage I Vapor Recovery Program.

R3-7-1001 - Material Incorporated by reference

R3-7-1002 - Exemptions

R3-7-1003 - Equipment and Installation

R3-7-1004 - Application Requirement and Process for Authority to Construct Plan Approval

R3-7-1005 - Initial Inspection and Testing

R3-7-1006 - Fees

R3-7-1007 - Operation

R3-7-1008 - Training and Public Education

R3-7-1009 - Recordkeeping and Reporting

R3-7-1010 - Annual Inspection and Testing

R3-7-1011 - Compliance Inspections

R3-7-1012 – Enforcement

R3-7-1013 – Stage II Vapor Recovery

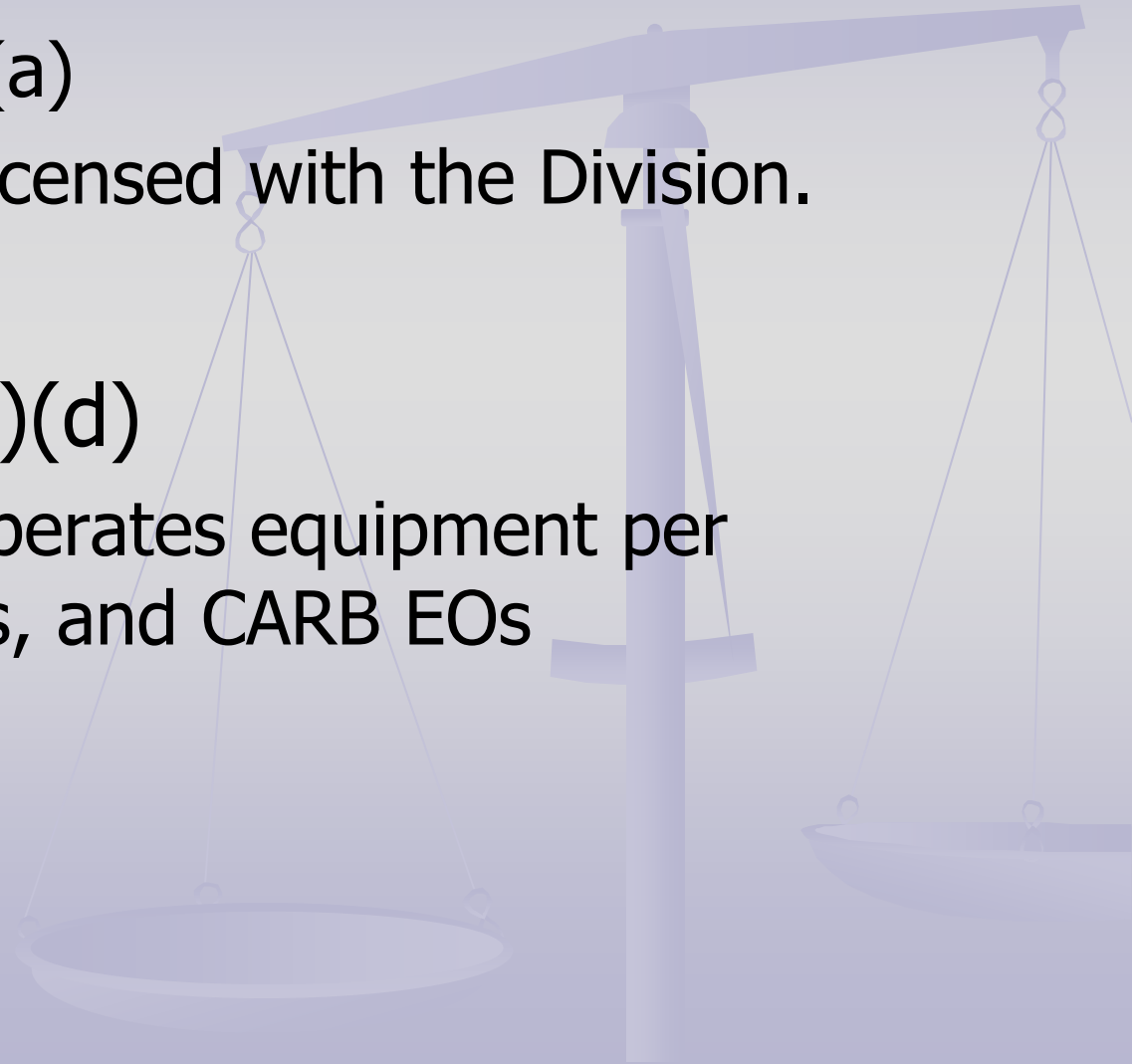
Registered Service Agency (RSA)

- R3-7-601 (A)(1)(a)

RSA's need to be licensed with the Division.

- R3-7-601(A)(1)(d)

- Ensure RSR operates equipment per Statutes, rules, and CARB EOs

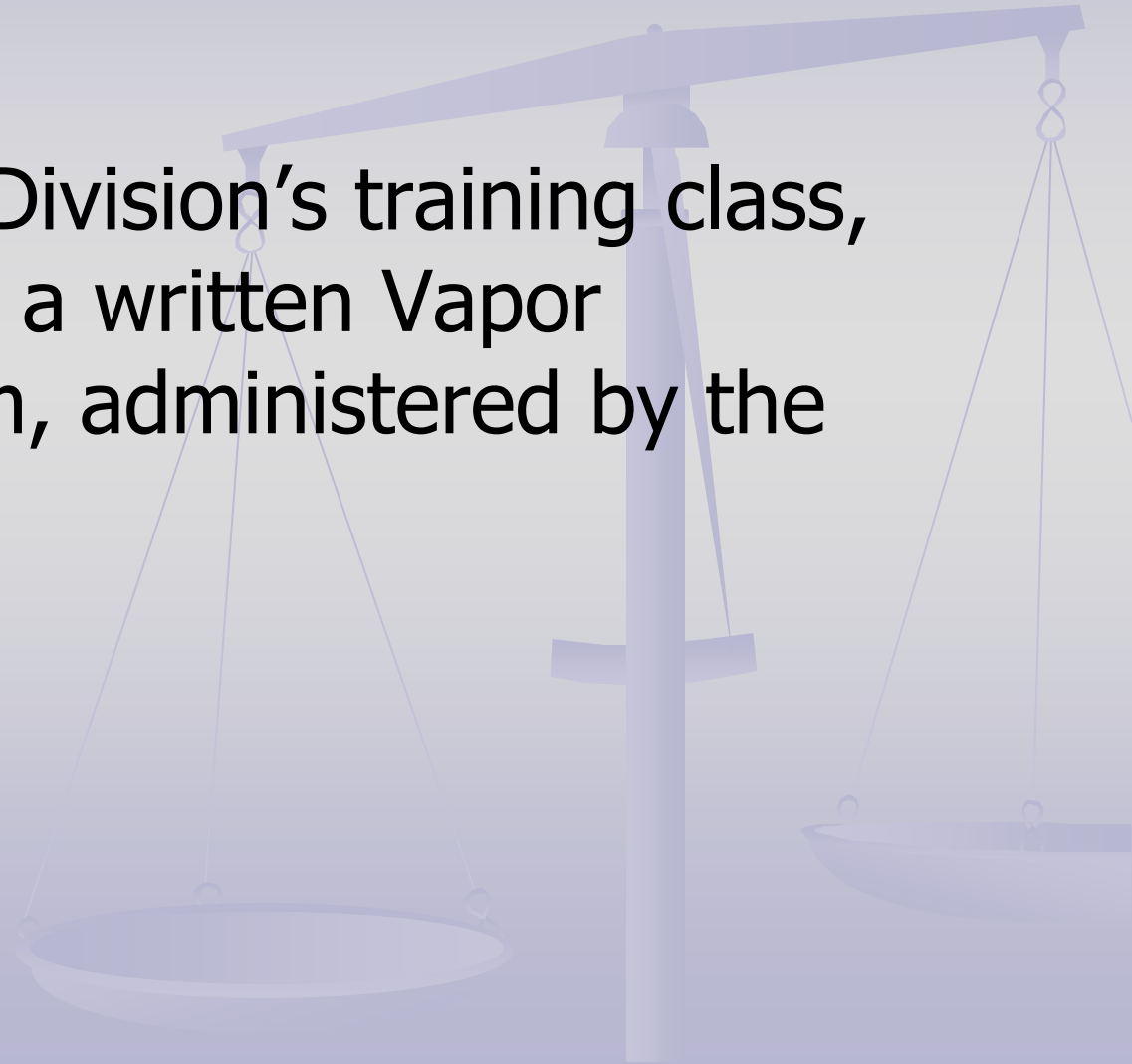


Registered Service Representative (RSR) Qualification

- R3-7-601 (C)
 1. A thorough knowledge of all appropriate law within Statutes, rules, CARB Executive Orders (EOs).
 2. Has necessary training/experience
 3. Will operate according to laws/CARB EOs
 4. Pass competency exam

RSR Training/Exam Requirements

- R3-7-601 (D)
- Complete the Division's training class, Take and pass a written Vapor Recovery exam, administered by the Division.

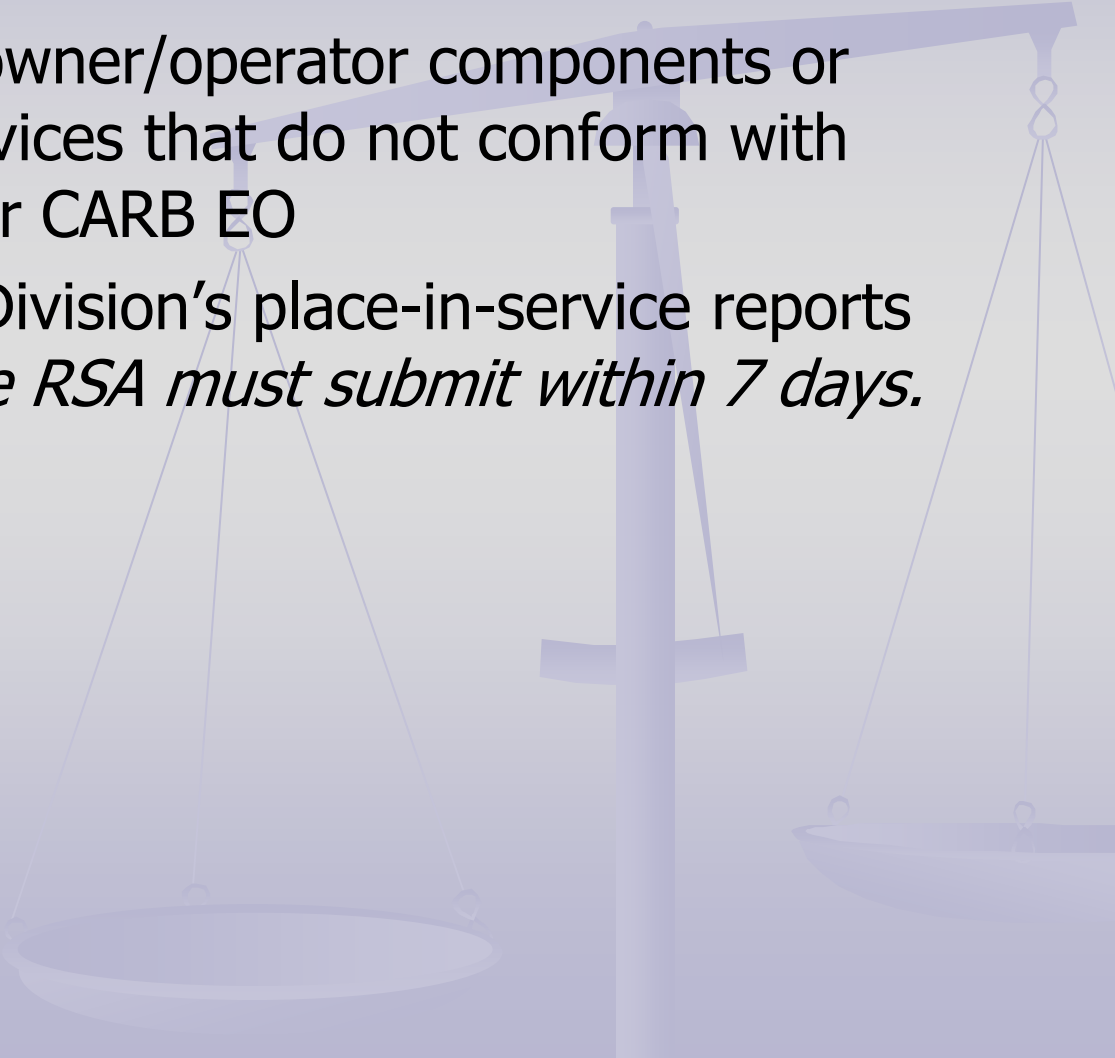


R3-7-602 (B) - RSR Duties

- RSRs have 5 duties:

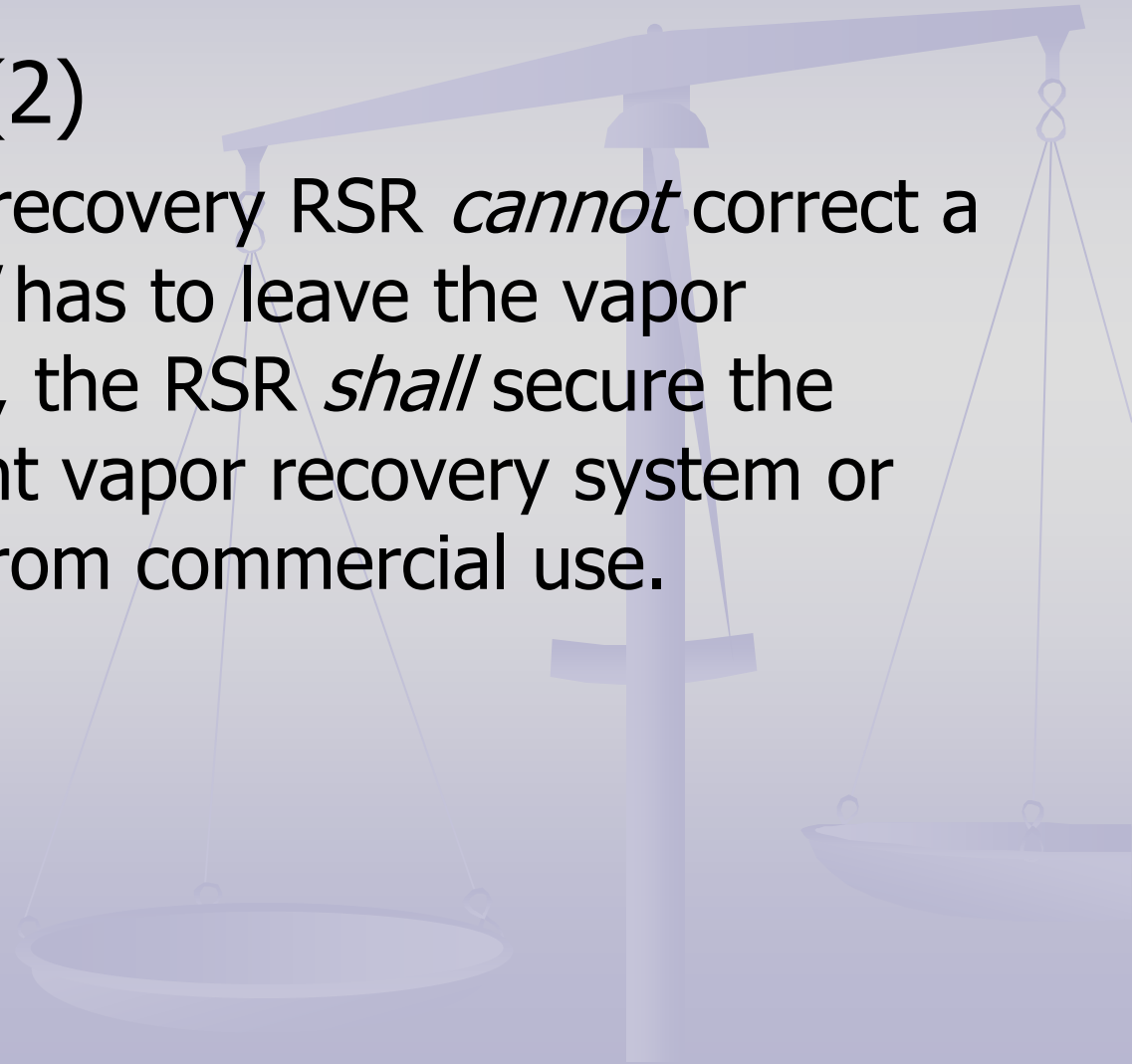
1. Install equipment components that meet the requirements
2. Perform all Vapor Recovery tests according rule;
3. Perform all appropriate tests when:
*“repairing a commercial device or:
repairing or replacing a vapor recovery
system or component,”*

R3-7-602 (B) - RSR Duties, cont....

4. Report to the owner/operator components or commercial devices that do not conform with Statute, rule, or CARB EO
 5. Complete the Division's place-in-service reports *accurately. The RSA must submit within 7 days.*
- 
- A faint, light blue background image of a balance scale is visible on the right side of the slide. The scale has two pans hanging from a horizontal beam, with a vertical post in the center. The pans are empty, and the scale is slightly tilted to the right.

RSR Duties for Non-Compliant Equipment

- R3-7-602 (B)(2)
 - If a vapor recovery RSR *cannot* correct a violation *and* has to leave the vapor recovery site, the RSR *shall* secure the non-compliant vapor recovery system or component from commercial use.



RSR Duties for Non-Compliant Equipment

- R3-7-602 (B), cont....
 - The non-compliant system or component shall not be used for commercial purpose until it is repaired and passes the test(s) required by R3-7-910.
 - The RSR shall notify the Division of the stop-sale, stop-use by 6:00 am of the day after the non-compliant vapor recovery system *or* component is secured *or* one hour before the test, whichever is sooner, so that the Division can witness the test.

Grounds for Denying License or renewal; Disciplinary Action and Certification of Standards and Testing Equipment R3-7-603 (F)

- The Division may deny a license or renewal for:
 1. Providing false or misleading information;
 2. Failure to meet annual certification requirements for standards or testing equipment;
 3. Failure to meet the requirements stated in this Article;
 4. For any reason that would be grounds for suspension, revocation, or refusal to renew.

Grounds for Denying License or renewal;
Disciplinary Action and Certification of
Standards and Testing Equipment
R3-7-603 (G)

- The Division may suspend, revoke, or refuse to renew a licensee if the applicant is not qualified to perform those duties required or has been found to have violated any provision of A.R.S. Title 41, Chapter 15 or this Chapter.

WMSD Tags....

OUT OF SERVICE TAG

Is a red tag that signifies that a commercial device does not meet legal requirements and that the owner or operator cannot use the device commercially until repaired. A RSR can place a device back into service and permanently remove the red tag once the device is meets Handbook 44 requirements.



STOP-SALE STOP-USE TAG

Is a blue tag that signifies that an owner or operator cannot sell or use a commercial device, including a vapor recovery system component, commodity or liquid fuel, because it does not meet legal requirements. A RSR cannot place a device back into service and permanently remove the blue tag until the Department grants specific approval.



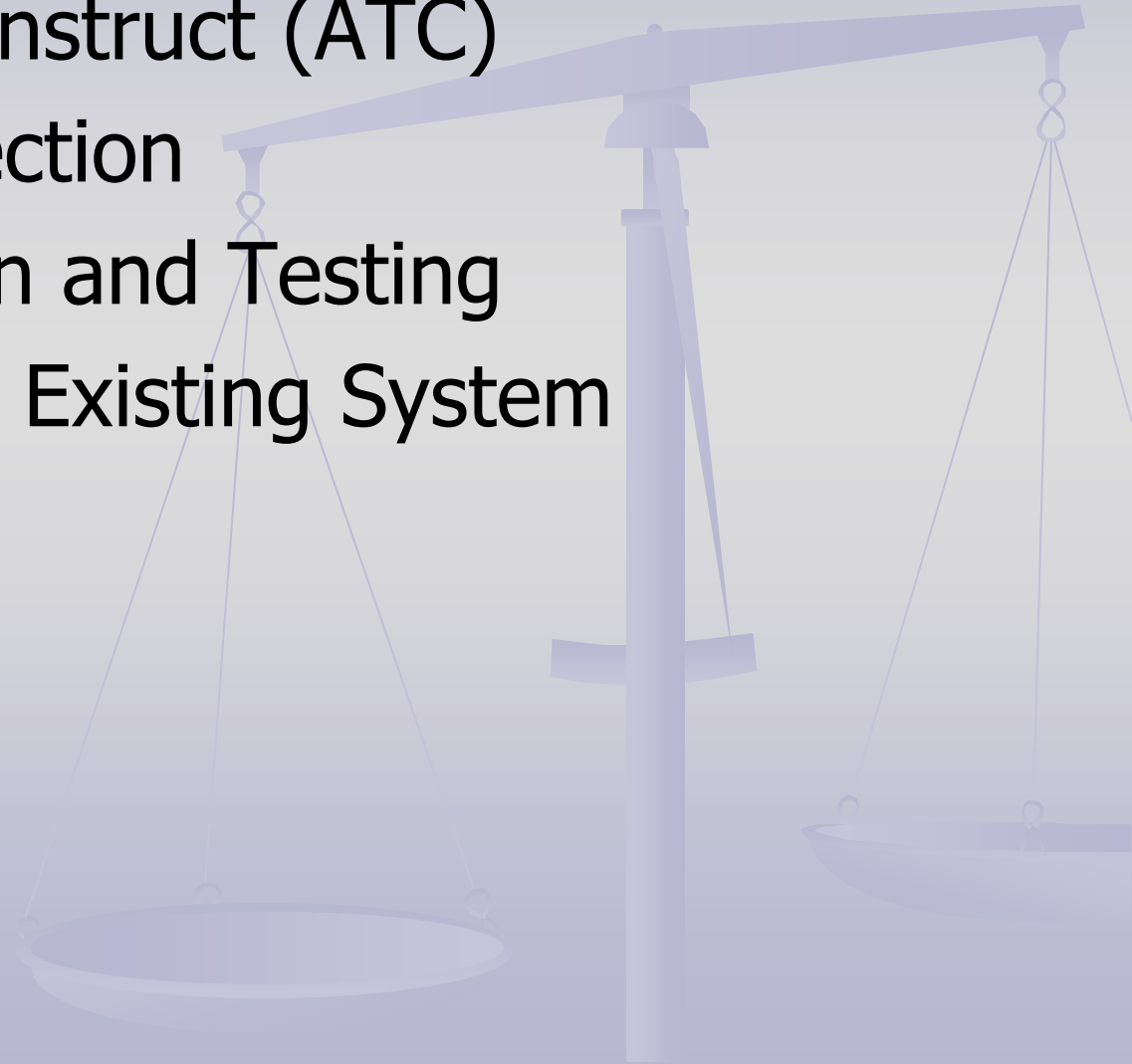
WARNING TAG

Is a yellow tag that signifies a commercial device does not comply with legal requirements (generally the violation is in error of the consumer) and the device may only be used within the period specified on the tag but not after unless the device is in compliance. A RSR can permanently remove the yellow tag meets Handbook 44 requirements.



Program Permitting and Testing Requirements

- Authority To Construct (ATC)
- Pre-burial Inspection
- Initial Inspection and Testing
- Modifications to Existing System



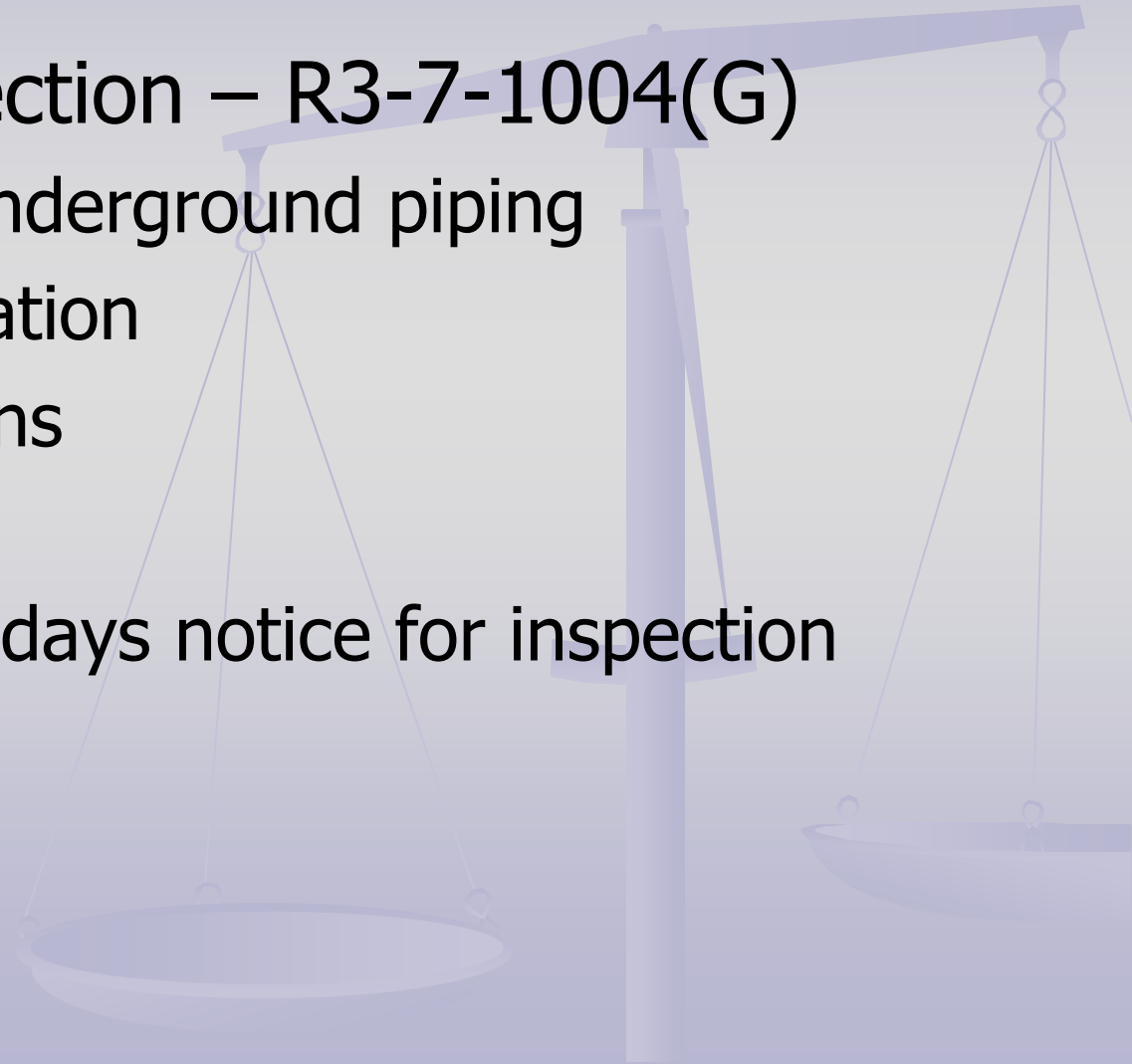
Program Permitting and Testing Requirements R3-7-1004

■ Authority To Construct (ATC)

- Cannot start construction without a permit issued by WMSD.
- Major Modification is considered to be:
 - Adding or replacing a gasoline storage tank with stage I
 - Adding, modifying, or replacing underground vent piping
 - Conducting construction that would expose vapor piping at tank top not previously disconnected during stage II decommissioning.

Program Permitting and Testing Requirements


- Pre-burial Inspection – R3-7-1004(G)
 - Inspection of underground piping
 - Piping configuration
 - Tank connections
- Must provide 2 days notice for inspection



R3-7-1004, ATC Requirements

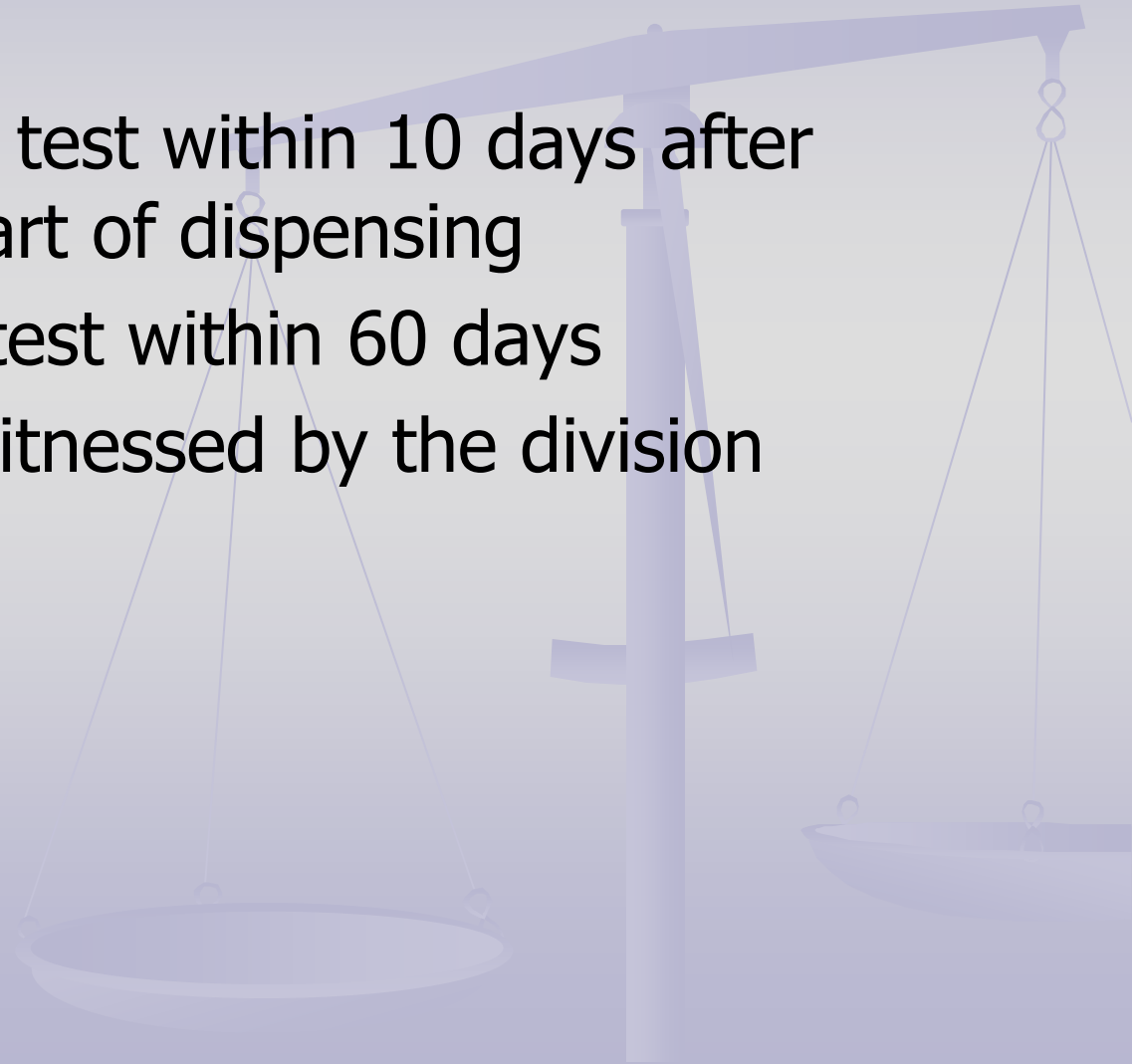
- D. A person shall ensure that an installed or modified stage I vapor recovery system meets the following requirements:
1. Has CARB-certified product and vapor adaptors that prevent loosening or over-tightening of the stage I product and vapor adaptors;
 2. Consists of a two-point stage I system with separate fill and vapor connection points. Coaxial stage I vapor recovery systems shall not be used;
 3. Has a submerged fill pipe that has the fill pipe's highest point of discharge no more than six inches from the tank bottom;
 4. Has no tank containing motor fuel other than gasoline connected to the vapor piping;
 5. Uses cement that is resistant to deterioration from exposure to water, hydrocarbons, and alcohol to join all pipes;
 6. Has tank vent pipes that extend at least 12 feet above the elevation of the stage I fill points;
 7. Has tank vent pipes with a minimum inside diameter of:
 - a. Two inches if the pipe is not manifolded, or
 - b. Three inches from the point of manifold if the pipe is manifolded;
 8. Has pressure vacuum vent valves that are attached to the tank vent pipes by a threaded connection;
 9. If a gasoline tank is installed in an enclosed vault, has an emergency vent in addition to the pressure vacuum vent valve required under subsection (D)(8);
 10. Has a one-eighth inch threaded tap on the vent pipe between six and eight feet above ground level;



- 
11. Has risers into gasoline storage tanks that are capped with UL-approved caps;
 12. Has lead wires for instrumentation that pass through a leak-tight grommet with a compression fitting suitable for exposure to gasoline vapors;
 13. Has storage tank vent pipes and fill and vapor manhole tops that are painted a color that minimizes solar gain and has a reflective effectiveness of at least 55 percent. Reflectivity shall be determined by visually comparing the paint with paint-color cards obtained from a paint manufacturer that uses the Master Pallet Notation to specify the paint color (i.e. 58YY 88/180 where the number in italics is the paint reflectivity). Examples of colors have a reflective effectiveness of at least 55 percent include, but are not limited to, yellow, light gray, aluminum, tan, red iron oxide, cream or pale blue, light green, glossy gray, light blue, light pink, light cream, white, silver, beige, tin plate, and mirrored finish. A manhole cover that is color coded for product identification is exempt from this subsection; and
 14. Complies with other requirements outlined in the authority to construct permit.

ATC Requirements, cont.

- R3-7-1005
 - Schedule vapor test within 10 days after construction/start of dispensing
 - Perform vapor test within 60 days
 - Test must be witnessed by the division



Initial Inspection and Testing

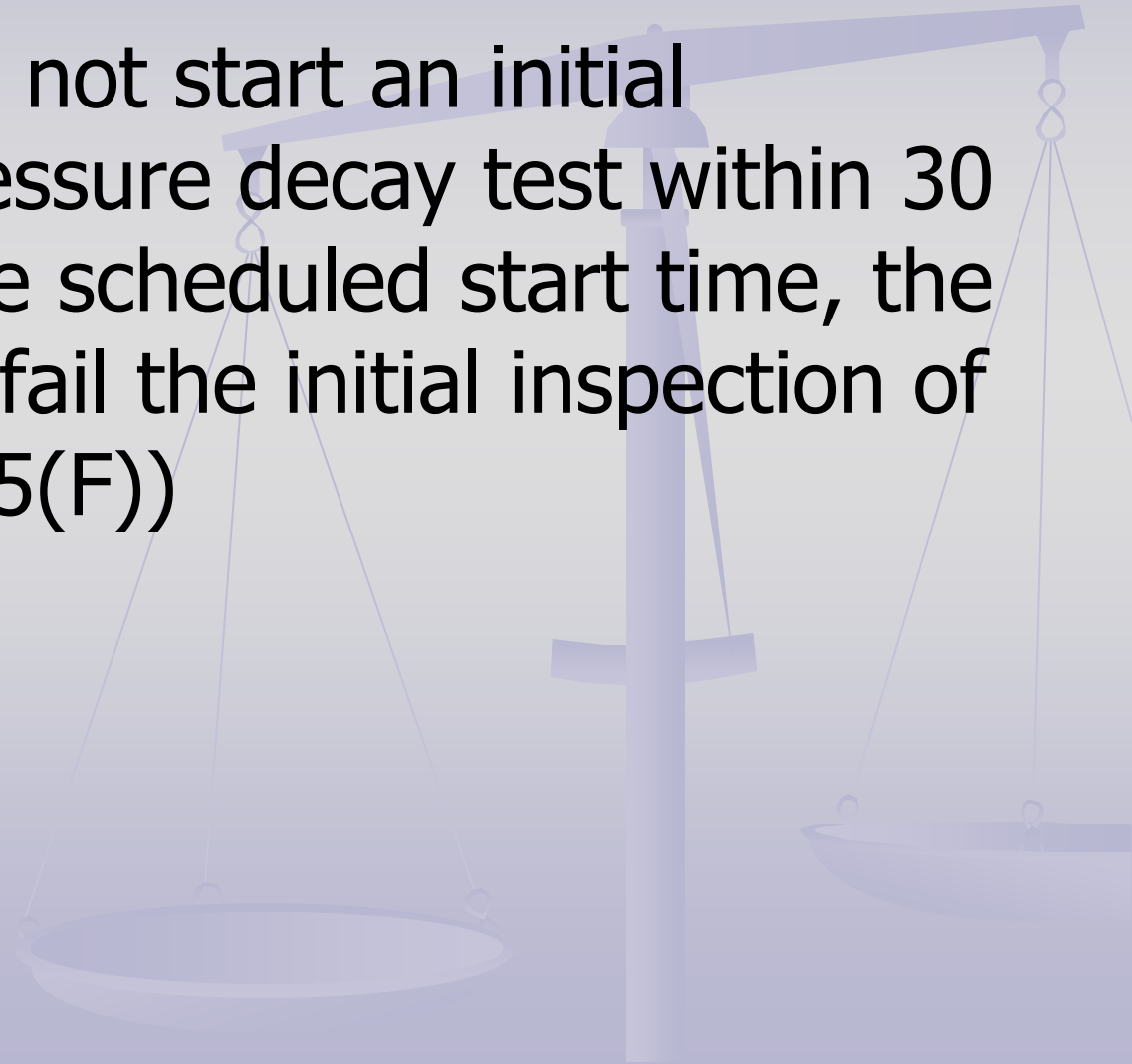
R3-7-1005, cont...

- Failing equipment shall remain out of service until the system/component passes appropriate tests (905(C))
- A person who cancels an initial inspection *shall* notify the Division by calling the Division's designated telephone number at least one hour before the scheduled inspection and *shall* reschedule the inspection within 10 days after this notification. (1005(D))
- Notify Division for repairs. Re-inspection date/time must be approved. (1005(E))

Initial Inspection and Testing

R3-7-1005, cont...

- If a RSR does not start an initial inspection pressure decay test within 30 minutes of the scheduled start time, the Division *shall* fail the initial inspection of the site. (1005(F))

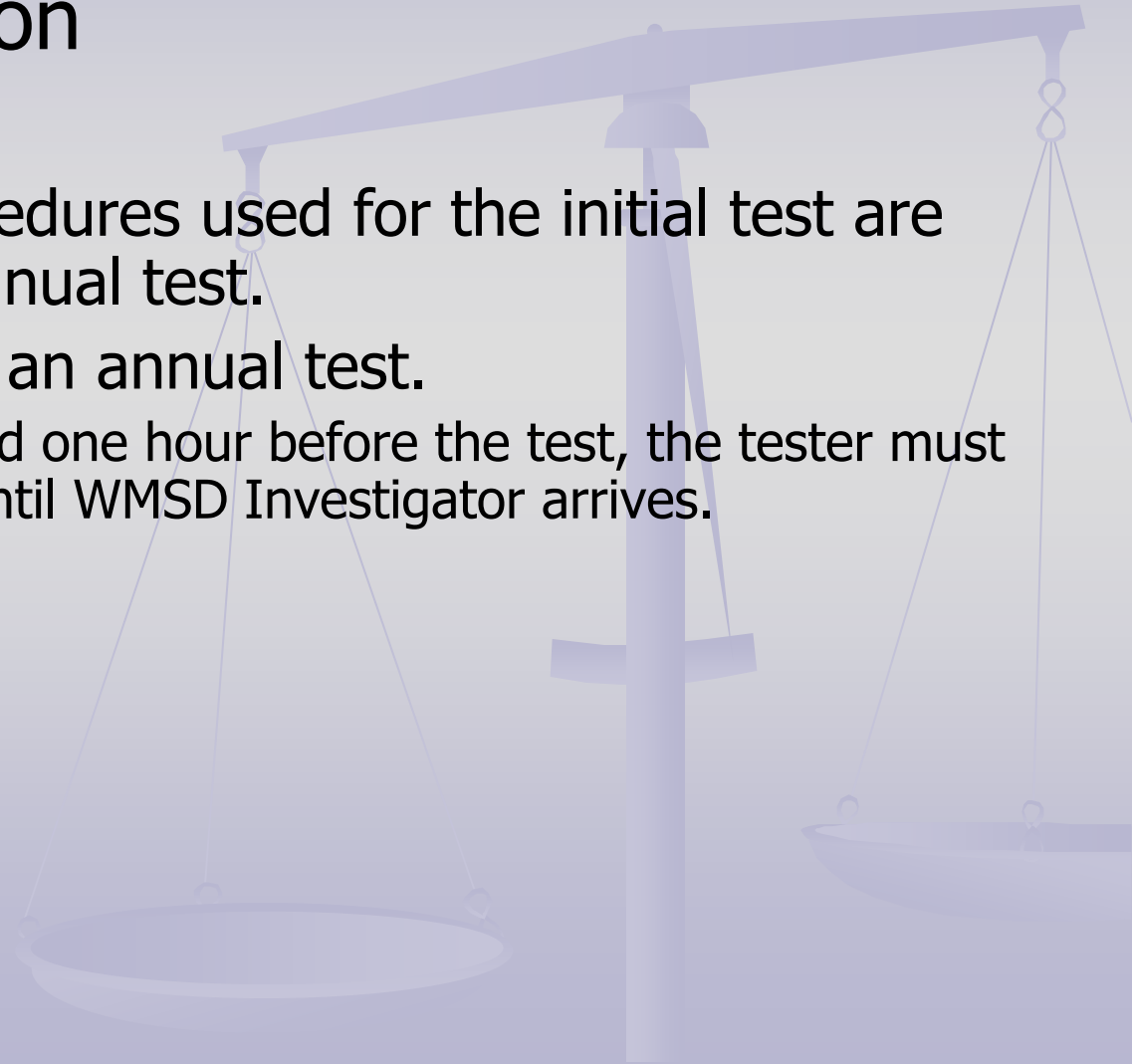


Annual Testing

- Annual Inspection

- R3-7-1010

- The same procedures used for the initial test are used for the annual test.
 - Cancellation of an annual test.
 - When canceled one hour before the test, the tester must stay on site until WMSD Investigator arrives.



Annual Inspection and Testing R3-7-1010(A)

- An annual inspection *shall* be conducted by a RSR on or before the annual inspection date. The *annual inspection date* is the last day of the month in which the last scheduled annual inspection was performed.
- RSA notify 10 business days before test, ADWM must approve the test date and time.

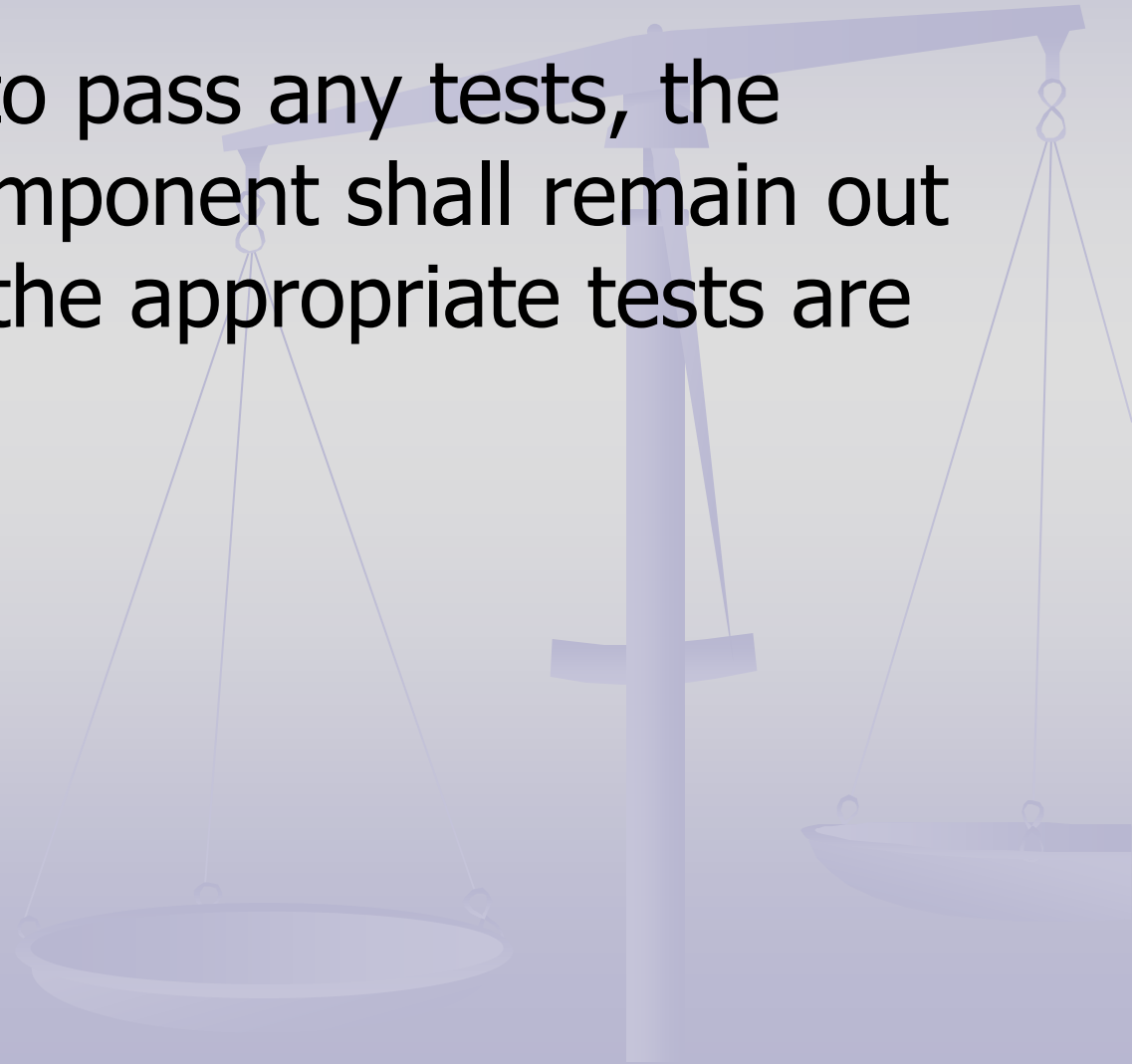
Annual Inspection and Testing

- R3-7-1010 (B)

- The annual inspection *shall* include the tests defined in R3-7-1005 (A)(1) through (3) that pertain to the specific vapor recovery system installed at that site.
 - Pressure decay (TP-201.3 using the final pressure criteria included in table 1)
 - Pressure vacuum vent valve (TP-201.1E)
 - Tie-Tank Test (TP-201.3C)

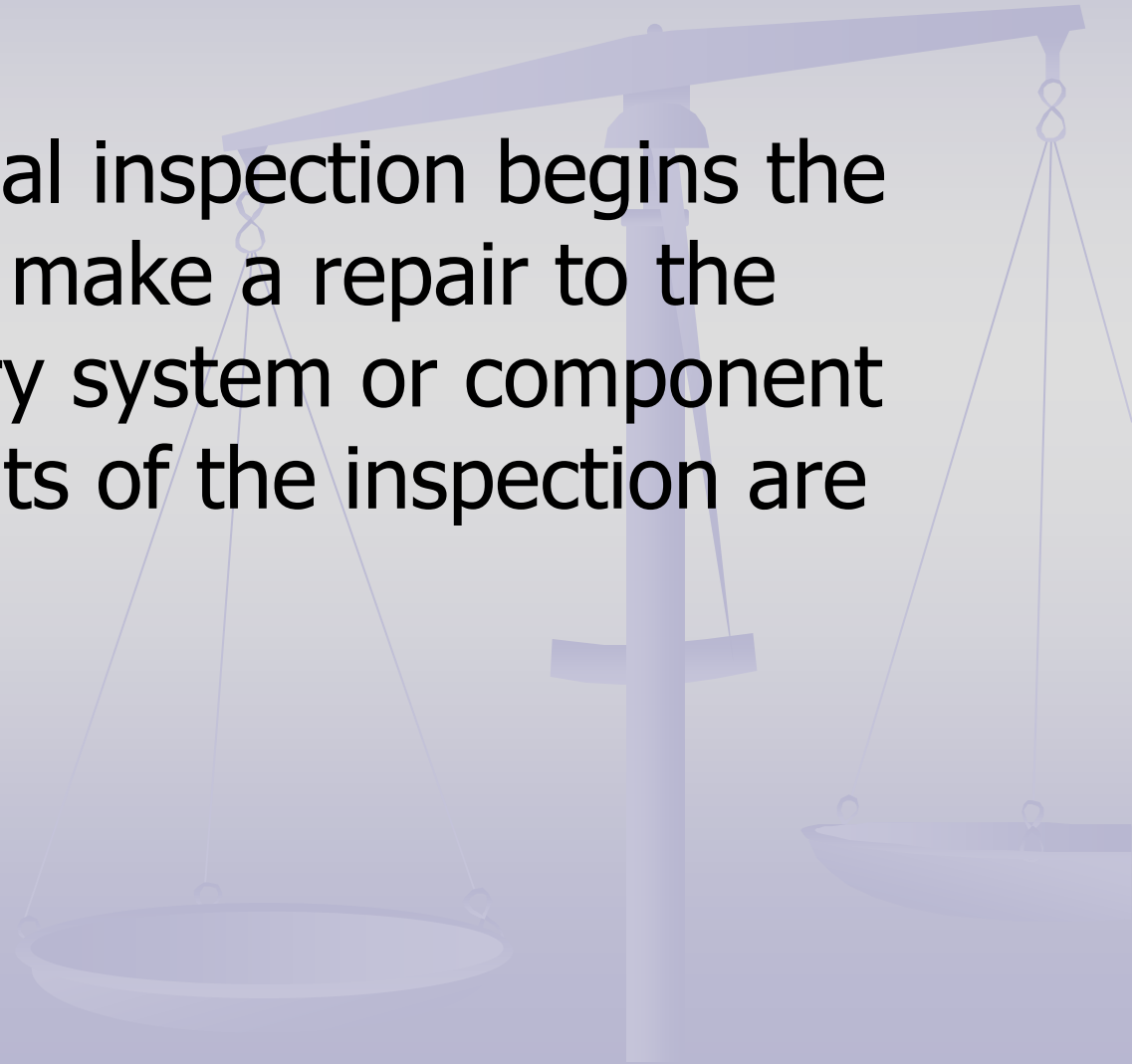
Annual Inspection and Testing R3-7-1010 (E)

- If the site fails to pass any tests, the affected site/component shall remain out of service until the appropriate tests are passed.



Annual Inspection and Testing R3-7-910 (F)

- After an annual inspection begins the RSR shall not make a repair to the vapor recovery system or component until the results of the inspection are recorded.



Annual Inspection and Testing R3-7-1010 (G)

- A RSR *shall* notify the Division when a vapor recovery system or component is repaired after failing an annual inspection. The RSR shall not conduct a re-inspection until the Division approves the reinspection date and time.

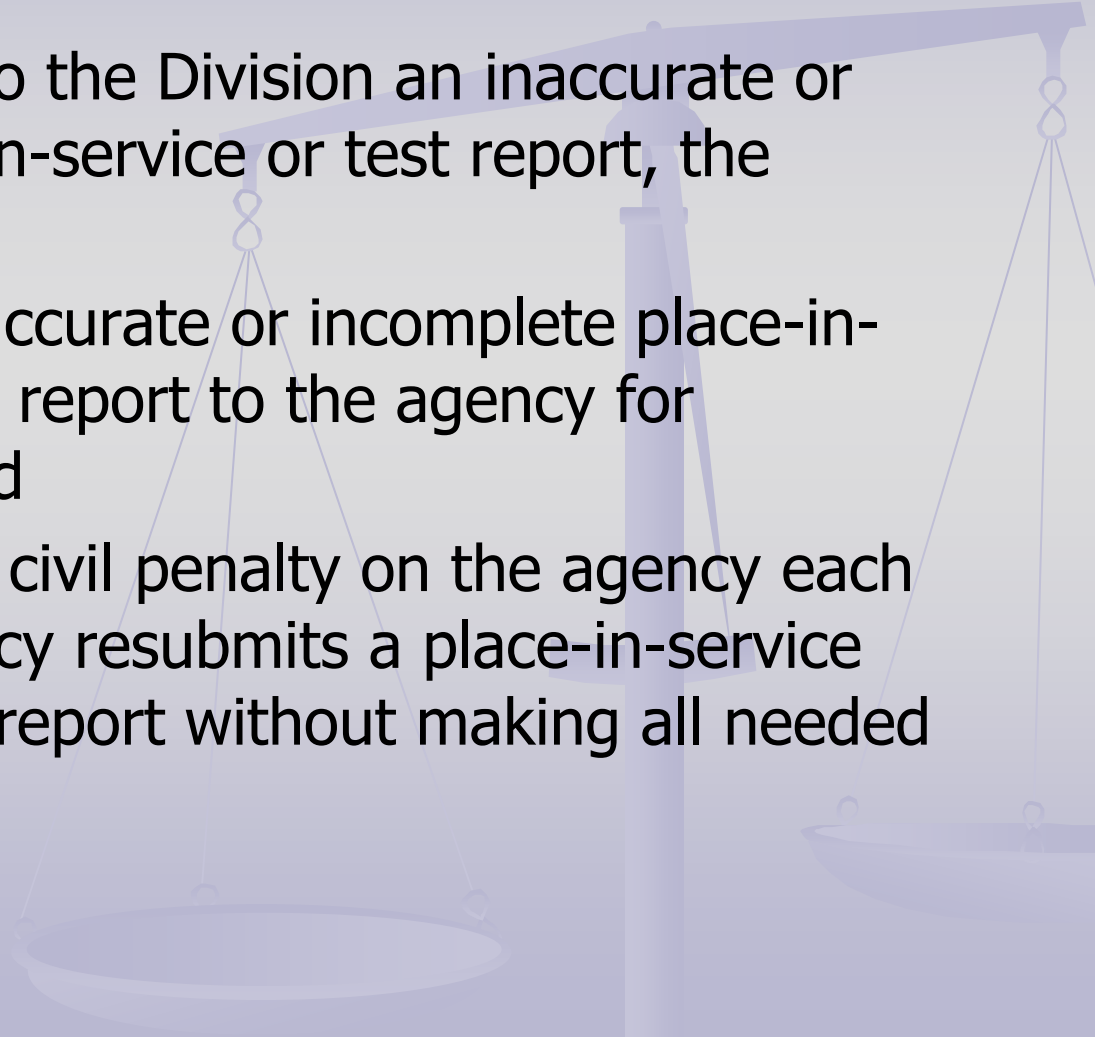
Annual Inspection and Testing

R3-7-1010 (I)

- A person who cancels a witnessed inspection *shall* notify the Division by calling the Division's designated telephone number at least one hour before the scheduled inspection and *shall* reschedule the test to be completed by the Annual Inspection date.
- RSA notify 10 business days before test, Division must approve the test date and time.

Administrative Enforcement Action

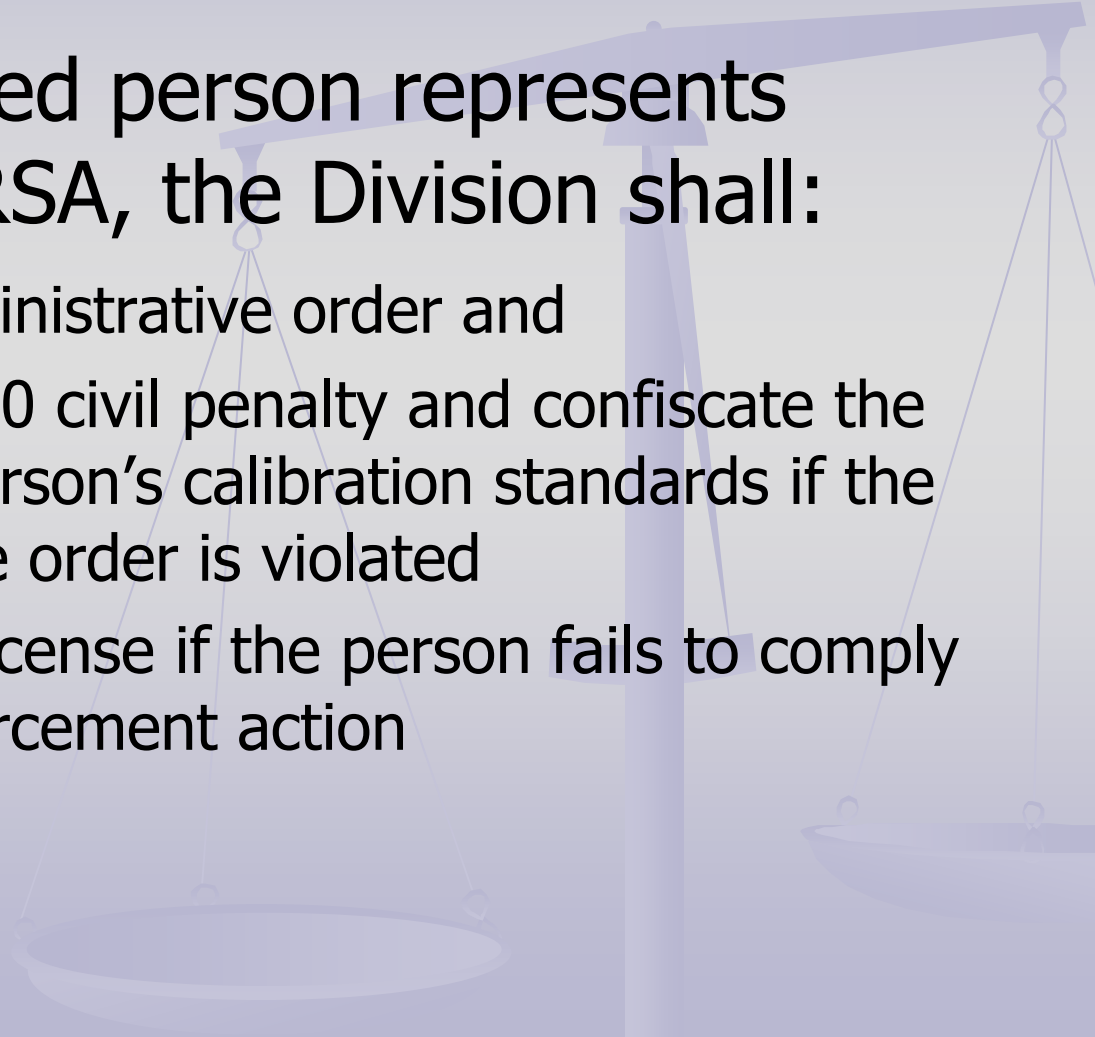
R3-7-104 (M)(1)

- If a RSA submits to the Division an inaccurate or incomplete place-in-service or test report, the Division shall:
 1. Return the inaccurate or incomplete place-in-service or test report to the agency for correction, and
 2. Impose a \$50 civil penalty on the agency each time the agency resubmits a place-in-service report or test report without making all needed corrections.
- 
- A faint, light blue background image of a balance scale is visible on the right side of the slide. The scale is tilted, with the right pan being higher than the left pan. The image is semi-transparent and serves as a decorative element.

Administrative Enforcement Action R3-7-104 (M)(2)

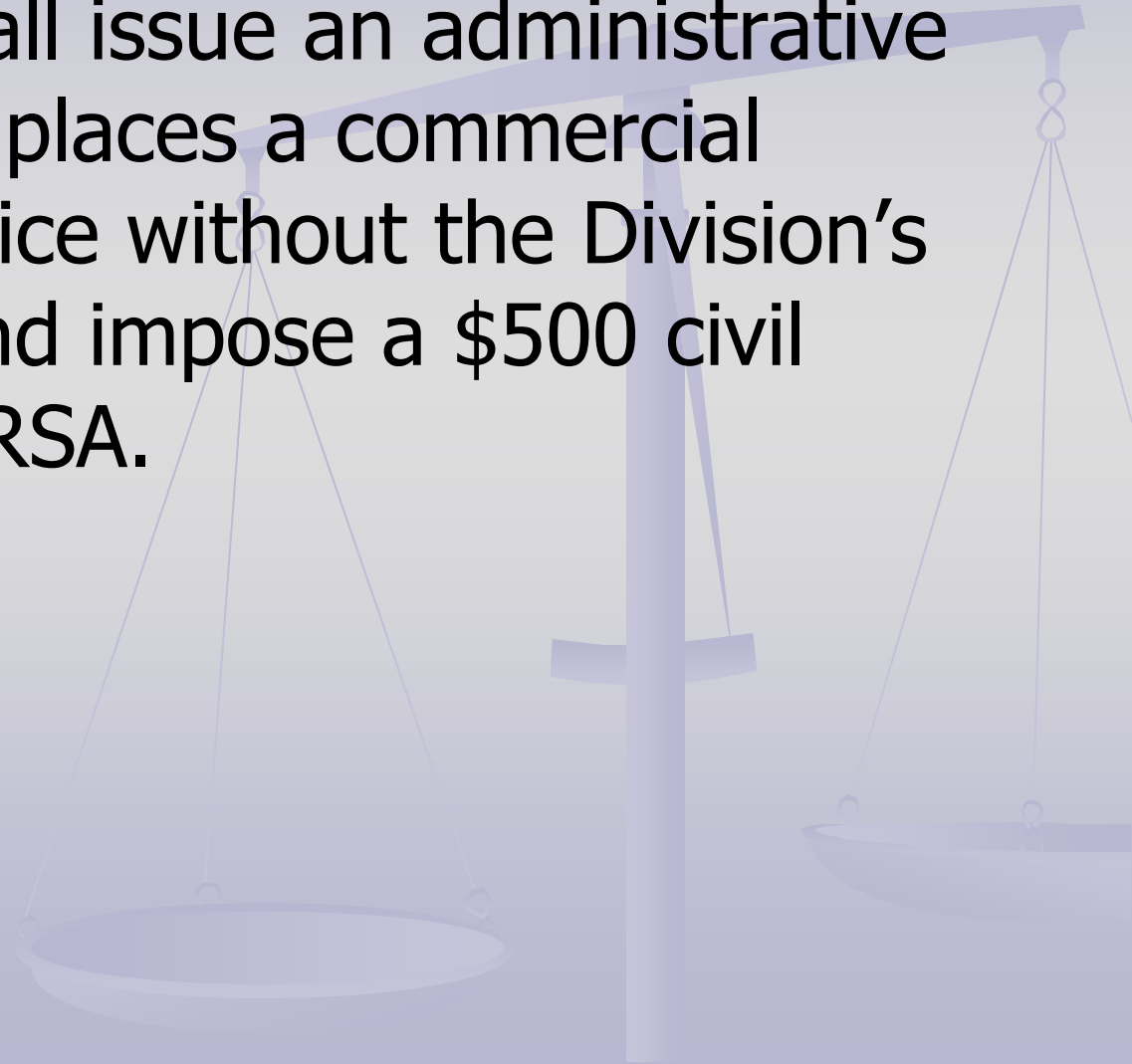
- The Division shall impose a \$300 civil penalty on a RSR who incorrectly:
 1. Installs a commercial device or,
 2. Repairs a commercial device or,
 3. Tests a vapor recovery system or,
 4. Repairs a vapor recovery system.

Administrative Enforcement Action R3-7-104 (M)(3)

- 
- If an unlicensed person represents himself as a RSA, the Division shall:
 1. Issue an administrative order and
 2. Impose a \$500 civil penalty and confiscate the unlicensed person's calibration standards if the administrative order is violated
 3. Deny a RSA license if the person fails to comply with the enforcement action

Administrative Enforcement Action R3-7-104 (M)(5)

- The Division shall issue an administrative order if an RSR places a commercial device into service without the Division's authorization and impose a \$500 civil penalty on the RSA.



Administrative Enforcement Action R3-7-104 (M)(6)

- The Division shall impose a \$500 civil penalty on an RSA whose RSR uses vapor recovery air-to-liquid (A/L) ratio testing equipment that is not certified. The Division shall confiscate the equipment if it is used after a civil penalty is issued.

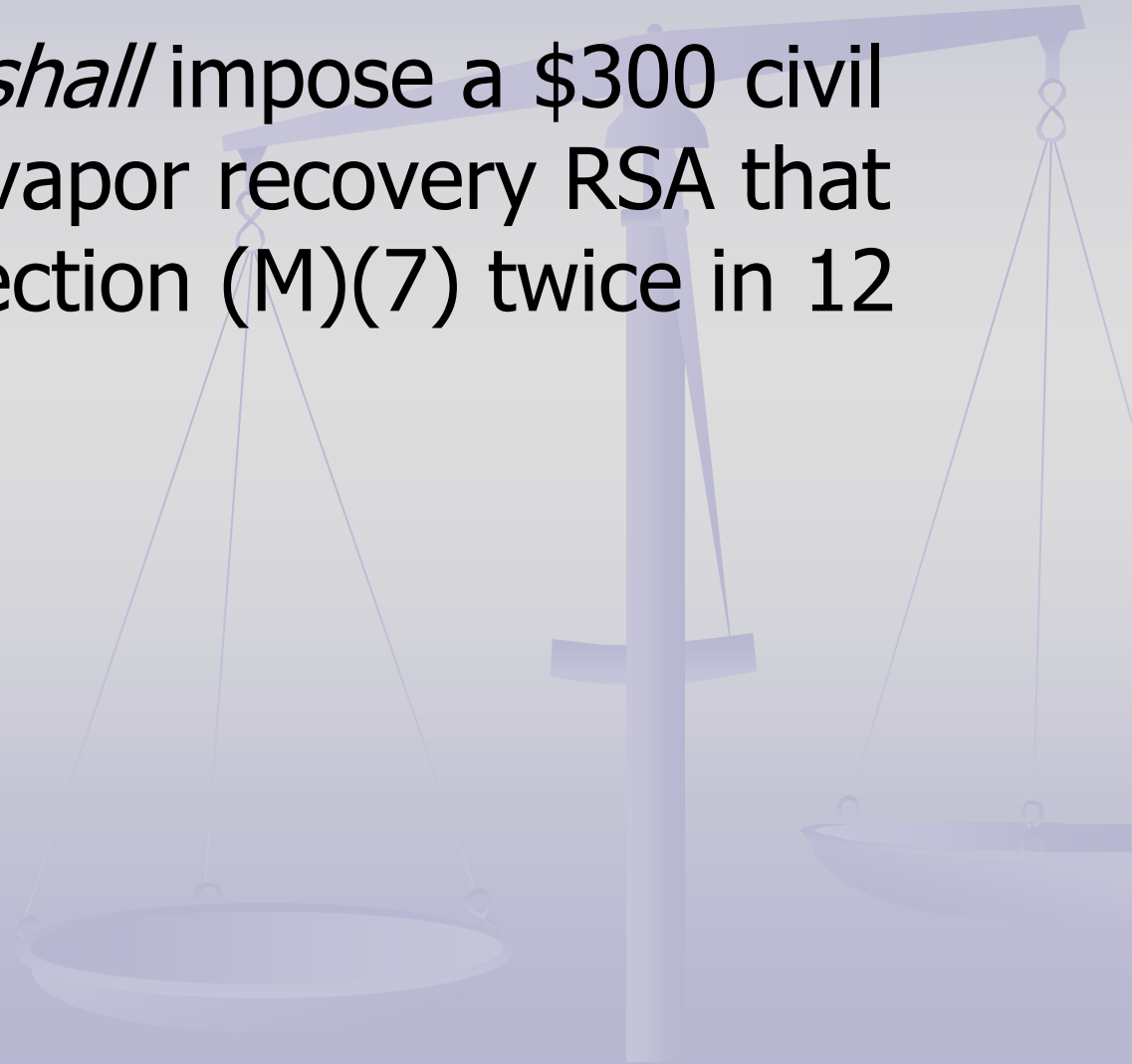
Administrative Enforcement Action

R3-7-104 (M)(7)

- The Division *shall* issue an administrative order to a vapor recover RSA or person who owns a vapor recovery system that does not, according to A.R.S. Title 41, Chapter 15, and this Chapter:
 1. Notify the Division of a test date and time,
 2. Begin a test at the approved time,
 3. Appear for a witnessed test,
 4. Close a vapor recovery system for repairs if the system fails, or
 5. Perform a test

Administrative Enforcement Action R3-7-104 (M)(8)

- The Division *shall* impose a \$300 civil penalty on a vapor recovery RSA that violates subsection (M)(7) twice in 12 months.



Administrative Enforcement Action

R3-7-104 (M)(10)

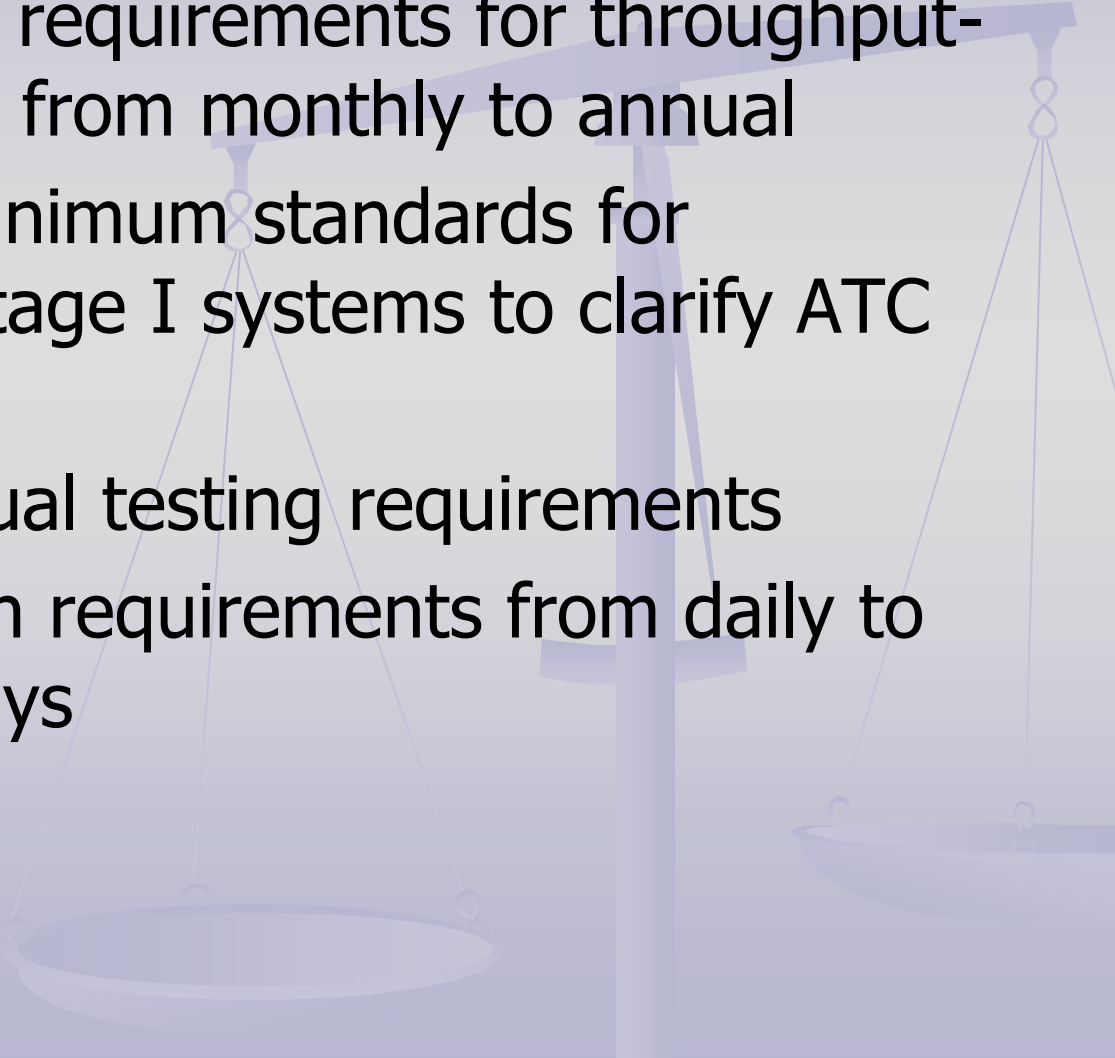
- If a RSR determines that a vapor recovery system or component is not in compliance with A.R.S. Title 41, Chapter 15, or this chapter, the RSR shall:
 - Secure the non-compliant vapor recovery system or component from use before the RSR leaves the vapor recovery site or until the system or component passes the tests required by R3-7-910;
 - Notify the Division of the secured, non-compliant vapor recovery system or component before leaving the site; and
 - Notify the Division of the time of the test required by R3-7-910 by 6:00 am of the day after the non-compliant vapor recovery system or component is secured or one hour before the test, which ever is sooner.

Administrative Enforcement Action

R3-7-104 (M)(11)

- If a RSR fails to comply with subsection (M)(10)(b) or (M)(10)(c), the Division shall:
 1. Impose a \$300 civil penalty on the RSR.
 2. Issue an administrative order, if the RSR is penalized under this subsection three times in 12 months, requiring the RSR to take and pass the licensing competency examination; and
 3. Suspend or revoke the license of the RSA employing the RSR does not comply with an order issued under subsection (M)(11)(b)

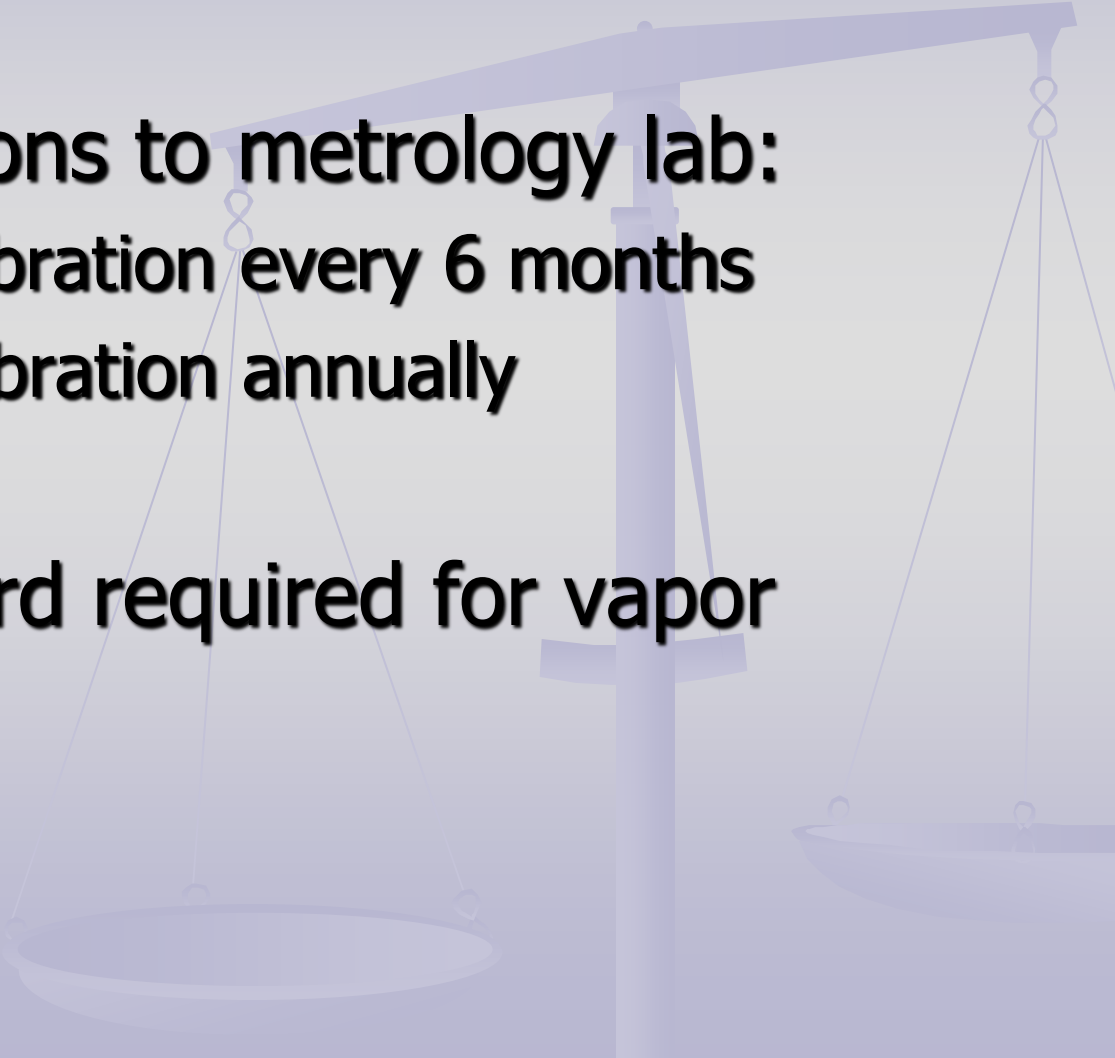
Stage I Vapor Recovery Requirements

- Eased reporting requirements for throughput-exempt stations from monthly to annual
 - Incorporated minimum standards for installation of Stage I systems to clarify ATC requirements
 - Maintained annual testing requirements
 - Eased inspection requirements from daily to once every 7 days
- 
- A faint, light blue background image of a balance scale is visible on the right side of the slide. The scale is tilted slightly to the right, with the right pan being lower than the left pan. The scale has a central vertical pillar and two pans hanging from a horizontal beam.

SOP 307

- Section 9.1
 - Pressurize to at least 2.2 wci
 - Once stabilized, disconnect the nitrogen supply
 - Start the stop watch and time
 - If pressure is stable after 10 minutes, test passes
 - If pressure is decreasing, restart the stop watch when the pressure gets to 2.0 wci
 - After 5 minutes, record the final system pressure.
 - See A.A.C. Title 3, Chapter 7, Article 9, Table 1 to determine acceptability

Calibrations

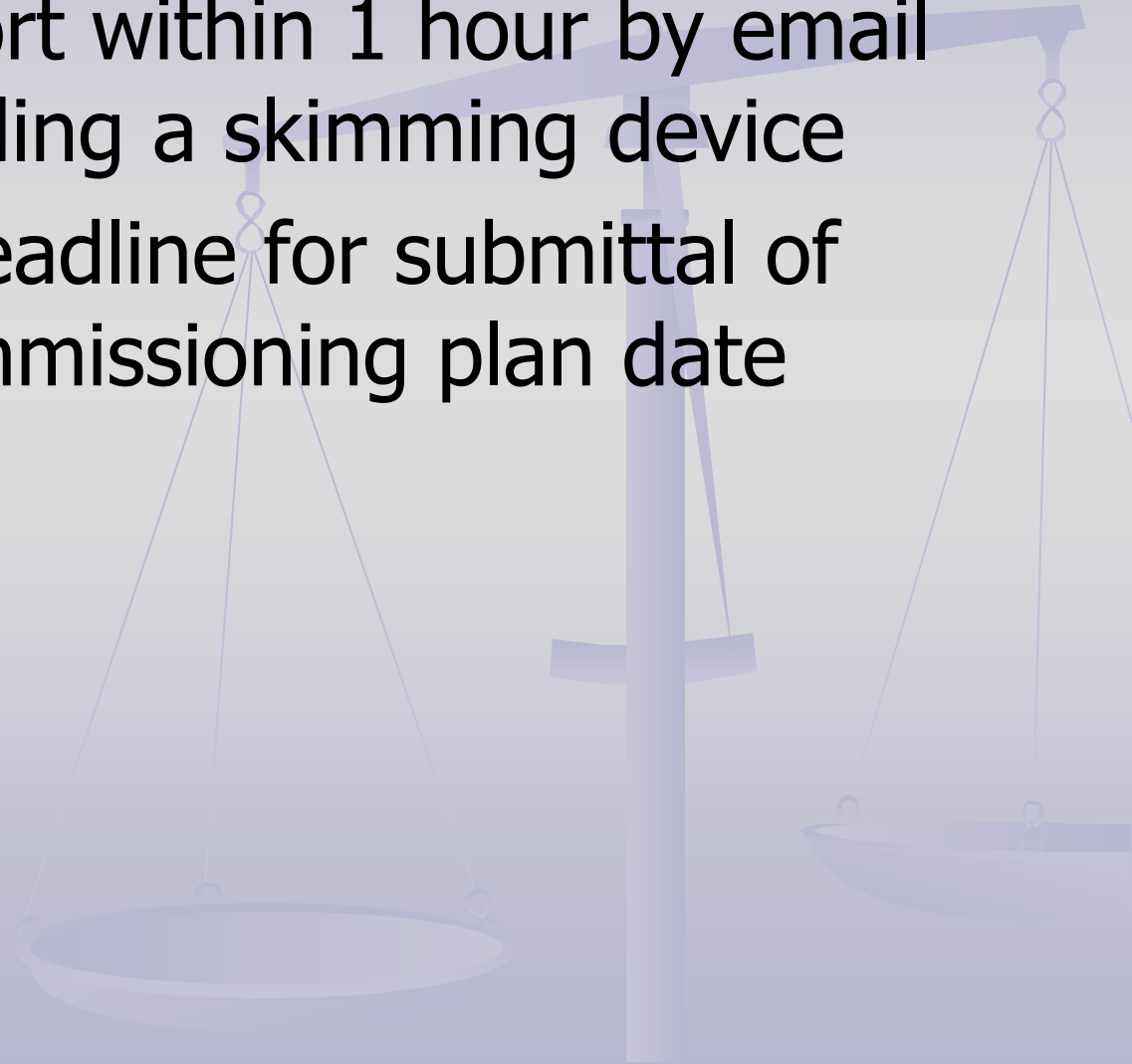
- **Submit calibrations to metrology lab:**
 - **manometer calibration every 6 months**
 - **PV test unit calibration annually**
 - **No hand standard required for vapor testing**
- 

Proposed Rules

- Should be in Arizona Register 4/28/17
 - Provide for flexibility in civil penalty issuance
 - Clarify testing requirements to standardize between other Department of Agriculture divisions (75% passing score, can't take more than 3 times in 6 months, must wait 7 days before retake)
 - Requires vapor RSR class and exam once every 36 months

Proposed rules, cont.

- RSRs must report within 1 hour by email or phone of finding a skimming device
- Removes the deadline for submittal of alternate decommissioning plan date changes



Questions ?

602-771-4920
dwm@azda.gov



Written Test

- You will have 1 hour and 30 min. to complete the written test.
 - The Test is open book only.
 - If you do not pass, you can take the test one more time.
 - If you fail to pass it a second time, you must wait 6 months before you can take the test again.
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